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RTMENT OF MINES AND TECHNICAL SURVEYS

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TÈRE DES MINES ET DES RELEVÉS TECHNIQUES







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CANADA

**CANADIAN GOVERNMENT  
PUBLICATIONS  
DU GOUVERNEMENT CANADIEN**

**MINES ET RELEVÉS TECHNIQUES  
DIRECTION DES MINES ET  
DIVISION DES RESSOURCES MINÉRALES**

**MINES BRANCH AND  
MINERAL RESOURCES DIVISION  
MINES AND TECHNICAL SURVEYS**

**SECTIONAL CATALOGUE No. 12**

**JULY 1962 JUILLET**

**BIBLIOGRAPHIE N° 12**

**THE QUEEN'S PRINTER**

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**OTTAWA, CANADA**



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of Mines Branch Publications, July, 1962**

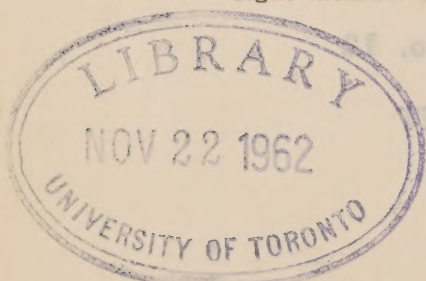
**Note.**—To keep this catalogue up-to-date insert under the appropriate headings, the publications listed in the Monthly Catalogue of the Queen's Printer.

La bibliographie n° 12 des publications du Gouvernement du Canada: *Division des publications de la Direction des Mines et de la Division des Ressources minérales, Ministère des Mines et des Relevés techniques* a été compilée par la Bibliothèque des documents, Département des Impressions et de la Papeterie Publiques avec la collaboration de la Division des Ressources minérales du Ministère des Mines et des Relevés techniques.

**Première édition, août 1957**

**Deuxième édition, juillet 1962**

**Note.**—On peu tenir à jour cette bibliographie en insérant aux endroits appropriés, les publications du Ministère qui paraissent dans le Catalogue mensuel de l'Imprimeur de la Reine.



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ROGER DUHAMEL, F.R.S.C.  
Queen's Printer and  
Controller of Stationery

ROGER DUHAMEL, M.S.T.C.  
Imprimeur de la Reine et  
Contrôleur de la Papeterie

OTTAWA, 1962



## PREFACE

In this new "Catalogue and Index of Mines Branch and Mineral Resources Division Publications" certain changes have been made.

Issued in the Sectional Catalogue Series of the Documents Library, Department of Public Printing and Stationery, the presentation of the material was adapted to the style of this series. In this edition, all reports and maps appear in numerical order with the necessary cross-references from English to French versions of the same report, from maps to accompanying reports and from advance chapters or separates to main reports and vice versa. Added to the contents are a few historical notes on the Mines Branch and the Mineral Resources Division. Explanation of the new publication series of these two issuing authorities have been added.

The index was carefully prepared to make it as comprehensive as possible. The subjects, titles, authors (in capital letters), and place names concerned are listed together in one alphabetical order.

To assist in the identification of the publication series of the Mines Branch and the Mineral Resources Division, this catalogue has been divided into five parts:

Part 1—Introduction

Part 2—The early Mines Branch publications series. It should be noted that some publications of the Mineral Resources Division are included up to 1959.

Part 3—The new publication series of the Mines Branch, commenced in 1958.

Part 4—The new publication series of the Mineral Resources Division, commenced in 1958.

Part 5—Index.

John Convey,  
Director,  
Mines Branch.

W. Keith Buck,  
Chief,  
Mineral Resources Division.

Ottawa, June 30, 1962.



## PRÉFACE

Cette nouvelle édition du «Catalogue de la Direction des Mines et de la Division des Ressources minérales» comporte quelques modifications.

Étant publiée dans la série des bibliographies spéciales de la Bibliothèque des documents du Département des Impressions et de la Papeterie Publiques, la présentation de la matière a été adoptée au style de cette série. Dans cette édition, tous les rapports et toutes les cartes géographiques sont en ordre numérique avec les renvois réciproques nécessaires des versions anglaises ou françaises d'un même rapport, des cartes géographiques accompagnant ces rapports et des chapitres anticipés ou séparés des rapports principaux. Nous avons cru bon d'ajouter également quelques notes historiques sur la Direction des Mines et la Division des Ressources minérales, ainsi que quelques mots explicatifs des nouvelles séries de documents publiées sous leur autorité.

L'index, aussi complet que possible, a été préparé avec soin. Les auteurs (en majuscule), les titres, les sujets et les noms de lieux ont été groupés en un seul ordre alphabétique.

Pour faciliter l'identification des items publiés par ces organismes, ce catalogue a été divisé en cinq parties:

Partie 1—Introduction

Partie 2—La série première des publications de la Direction des Mines. Il est à noter que quelques publications de la Division des Ressources minérales ont été énumérées ici jusqu'à 1959.

Partie 3—La série nouvelle de publications de la Direction des Mines commencée en 1958.

Partie 4—La série nouvelle de publications de la Division des Ressources minérales commencée en 1958.

Partie 5—Index.

John Convey,  
Directeur,  
Direction des Mines.

W. Keith Buck,  
Chef,  
Division des Ressources minérales.

Ottawa, le 30 juin 1962.



# SECTIONAL CATALOGUE No. 12—BIBLIOGRAPHIE No 12

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## HOW TO ORDER

Publications listed in this catalogue and accompanied by a price may be purchased from the Queen's Printer, Ottawa, or from the Publications Distribution Office, Mines Branch and Mineral Resources Division, Department of Mines and Technical Surveys, Ottawa, Canada.

Remittances must be made in advance of shipment of publications. Cheque or money orders should be made payable to the Receiver General of Canada. Postage stamps are not an acceptable form of currency in Canada.

No extra charge is made for postage on documents forwarded to points in Canada and the United States. To cover cost of postage, 30% is added to the selling price when publications are to be mailed to other countries.

*Note.*—A limited number of some out-of-print publications and maps are available. Inquiry as to price and availability should be addressed to the Publication Distribution Office, Mines Branch and Mineral Resources Division, Department of Mines and Technical Surveys, Ottawa, Canada.

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## GUIDE DE L'ACHETEUR

Les publications inscrites dans ce catalogue sont en vente lorsqu'un prix est indiqué. On peut se les procurer en s'adressant soit à l'Imprimeur de la Reine, Ottawa, soit au Bureau de la distribution des publications de la Direction des Mines ou de la Division des Ressources minérales, Ministère des Mines et des Relevés techniques, Ottawa, Canada.

Les commandes sont payables à l'avance et les remises se font par mandats-poste ou chèques visés, payables au Receveur général du Canada. Les timbres-poste ne sont pas acceptés.

L'expédition postale pour colis à destination du Canada ou des États-Unis ne comporte pas de frais supplémentaires; pour tous les autres pays, 30% pour les frais de port doit être ajouté au prix de vente.

*Avis.*—Une quantité limitée de certaines publications et cartes épuisées sont disponibles. Les demandes quant au prix et à la disponibilité doivent être adressées au Bureau de distribution des publications, Direction des Mines et de la Division des Ressources minérales, Ministère des Mines et des Relevés techniques, Ottawa, Canada.



**MINES BRANCH AND  
MINERAL RESOURCES  
DIVISION**

**DIRECTION DES MINES ET  
DIVISION DES RESSOURCES  
MINÉRALES**

**Sectional Catalogue No. 12**

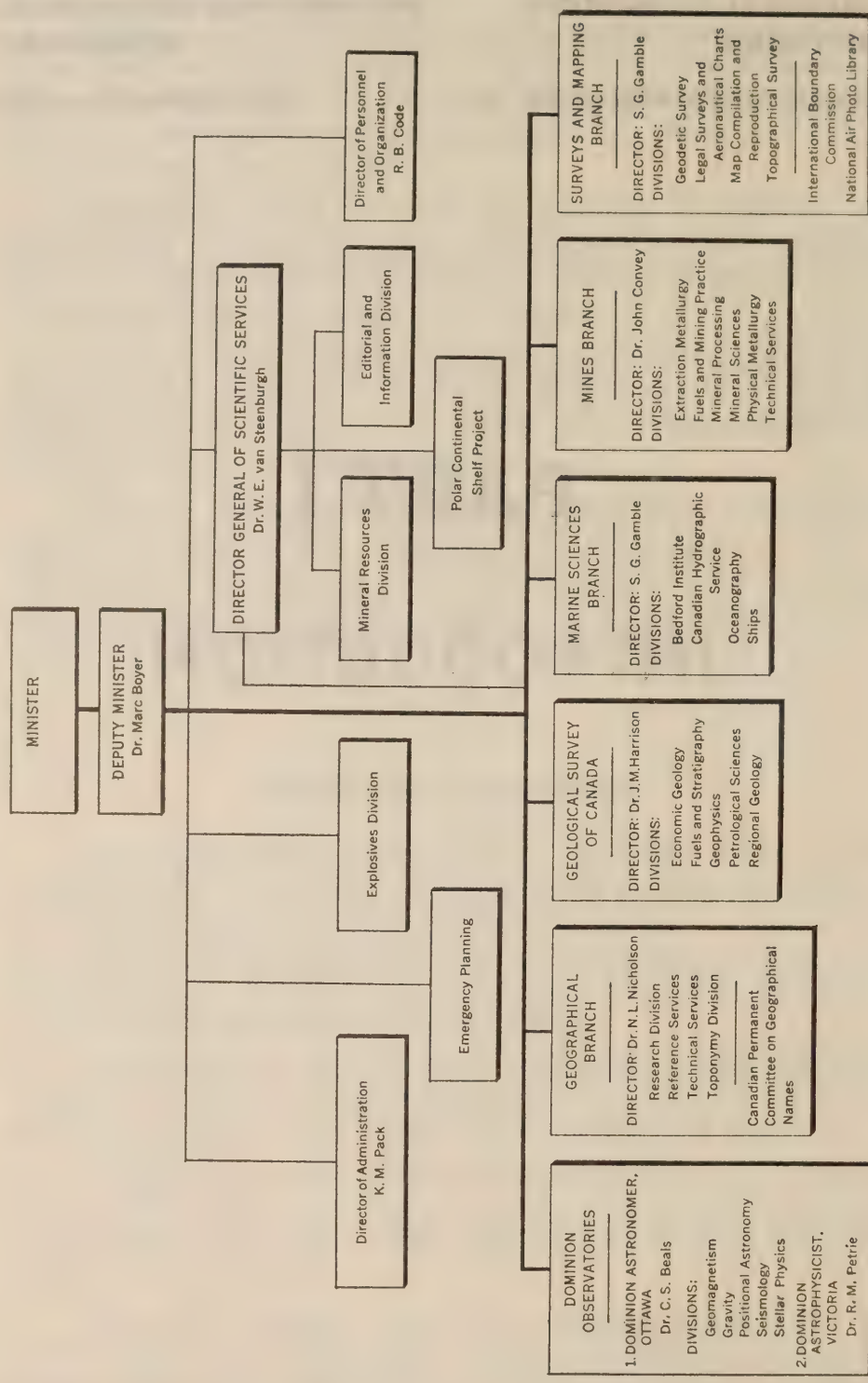
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# **PART I**

## **INTRODUCTION**



CANADA  
DEPARTMENT OF MINES AND TECHNICAL SURVEYS



April, 1962  
*Marc Boyer*



## **A: HISTORICAL NOTES**

### **1884-1901: Department of the Interior**

The appointment of a Superintendent of Mines for Manitoba and Northwest Territories is well explained in the following quotation from the annual report of the Department of the Interior for the year 1884. "The increased accessibility, by means of the Canadian Pacific Railway, now in operation beyond the summit of the Rocky Mountains, and the growing importance of the available mineral resources of the North-West necessitated the appointment of a Superintendent, and Mr. William Pearce, the Inspector of Dominion Land Agencies, was selected for that post." Mr. Pearce was the Superintendent of Mines up to June 5, 1901, when he was transferred to the office of Chief Inspector of Surveys.

The history of the Mineral Resources Division may be said to date back to 1886, when the Division of Mineral Statistics and Mines of the Geological Survey was organized to collect statistics and issue annual reports on the mineral industries of Canada.

A new step was taken towards the organization of the Mines Branch with the appointment, on the 5th of June 1901, of Professor Eugene Haanel, Ph.D., as Superintendent of Mines. In the annual report for the year 1901, the Deputy Minister of the Interior said: "It may be explained in this relation that in view of the recent development of mining industries in the Yukon Territory and other sections of the country where the lands are under control of the Dominion government, it was felt that provision should be made for the appointment of a special technical officer whose scientific knowledge and practical experience in mining matters would fit him to take charge of this particular branch, such officer to advise the department upon the requirements in connection with this service and prepare reliable information for publication."

### **1907-1936: Department of Mines**

The first Department of Mines was created by the Geology and Mines Act, S.C., 1907, chapter 29. The Department was divided into two branches, the Geological Survey and the Mines Branch. By an order in Council dated May 15, 1907, the Mines Branch was transferred from the Department of the Interior to the Department of Mines, and Dr. Haanel shortly afterwards received his appointment as Director of the Mines Branch.



In 1907 the Division of Mineral Statistics and Mines was transferred to become the nucleus of the newly created Mines Branch, as the Division of Mineral Resources and Statistics.

The functions of the Mines Branch were to collect and publish full statistics of the mineral production and of the mining and metallurgical industries of Canada, and such data regarding the economic minerals as relate to the processes and activities connected with their utilization, to make detailed investigations of mining camps and areas containing economic minerals or deposits of other economic substances, and to make such chemical, mechanical and metallurgical investigations as were found expedient to aid the mining and metallurgical industry of Canada.

### **1936-1949: Department of Mines and Resources**

The Department of Mines and Resources which came into being on December 1, 1936, under the authority of chapter 33 of the Statutes of Canada, 1936, was divided into five branches. The functions of the new Department were those of the former Departments of Mines, Interior, Indian Affairs, and Immigration and included, as well, those of the Hydrographic Service Division which previously was part of the old Department of Marine.

The Mines and Geology Branch discharged the duties and activities of the former Department of Mines, together with air and topographical surveys transferred from the Topographical and Air Survey Bureau of the former Department of the Interior. The Branch comprised four main units: the Bureau of Geology and Topography, replacing the former Bureau of Economic Geology; the Bureau of Mines, replacing the former Mines Branch; the National Museum of Canada; and the Dominion Fuel Board.

### **1949- : Department of Mines and Technical Surveys**

The Department of Mines and Technical Surveys was created by an Act of Parliament (13 George VI, chapter 17) which received Royal Assent on December 10, 1949, and came into force by Order in Council P.C. 2/330 of January 20, 1950. Its establishment resulted from the organization of certain former government departments into new departments.

As now constituted, the Department is an integrated organization whose primary functions are to provide technological assistance in the development of Canada's mineral resources through studies, investigations, and research in the fields of geology, mineral dressing, and metallurgy, and to carry out geodetic, topographic, hydrographic, and other surveys of use in the development of Canada's natural resources.

The Department has six branches, namely, the Surveys and Mapping Branch, the Geological Survey of Canada, the Mines Branch, the Dominion Observatories, the Geographical Branch, and the Marine Sciences Branch.



## **1956**

On June 26, 1956, the Mineral Resources Division, was transferred from the Mines Branch to the Office of the Deputy Minister of Mines and Technical Surveys through the Director General of Scientific Services. This organizational change resulted in the Mineral Resources Division setting up its own publication series separate and distinct from the Mines Branch series.

## **1959**

A reorganization regrouped a major part of the function of the Mines Branch into three new Divisions: the Mineral Processing Division, the Extraction Metallurgy Division, and the Mineral Sciences Division. In addition to these, the Mines Branch is composed of the Physical Metallurgy Division, the Fuels and Mining Practice Division, and the Technical Services Division.

## **B: FUNCTIONS OF THE MINES BRANCH**

The **Mines Branch** is primarily concerned with the technological problems of the mineral industry and maintains well-equipped ore testing, mineral dressing, fuel research, ceramic, radioactivity, industrial waters, and physical metallurgy laboratories to handle these problems. The scope of its activities ranges from relatively minor tests on the lowly sands to fundamental research on the rare metals, from handling routine inquiries to such highly important and specialized assignments as handling the metallurgical problems of the atomic energy project at Chalk River, Ontario.

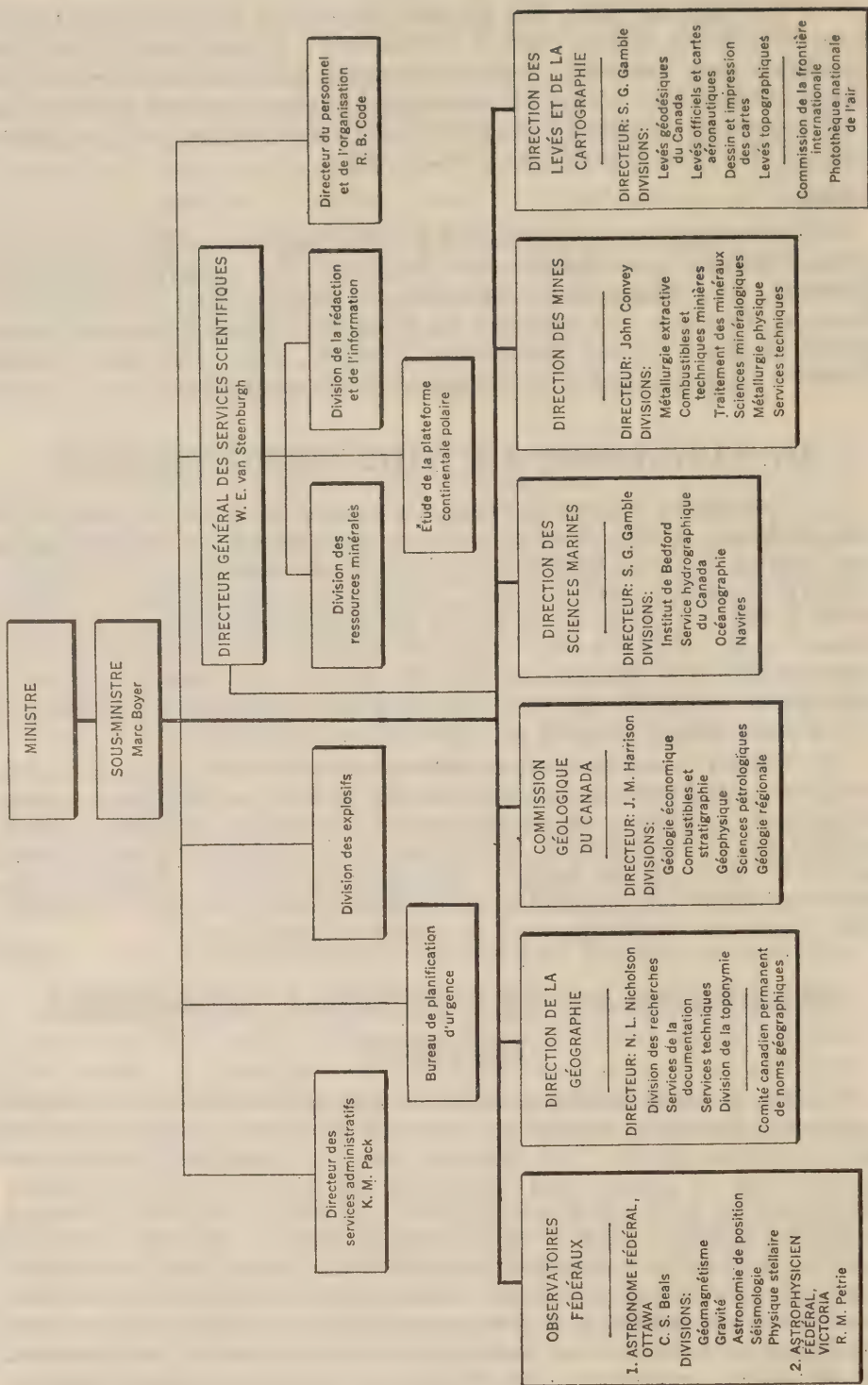
Within this broad range come tests and research on ores and radioactive minerals designed primarily to work out and to improve treatment methods; investigations on industrial minerals aimed largely toward the greater utilization of Canadian sources of these minerals; work in the ceramic laboratories; intricate studies in the spectrographic and mineralographic laboratories; research on Canadian fuels; and investigations in physical metallurgy.

## **FUNCTIONS OF THE MINERAL RESOURCES DIVISION**

The work of the Division lies in the mineral resources, mineral economics, mineral legislation, mineral taxation, and government administrative fields. The Division has the important role in the Department of Mines and Technical Surveys of advising senior departmental and other government officials on matters affecting Canadian mineral policy. The Division collects, records, compiles and prepares information and advice for the use of the Department, other government departments, Crown corporations, foreign embassies, private industry, and the general public on mineral resources; mining and oil companies; technical-economic aspects of exploration, development, production and marketing; and on mineral industry legislation and taxation. It carries out technical-economic studies on all phases of the Canadian mineral industry, and also maintains a considerable record on the mineral industries of foreign countries. The Division is responsible for the administration of the Emergency Gold Mining Assistance Act.



CANADA  
MINISTÈRE DES MINES ET DES RELEVÉS TECHNIQUES



Avril, 1962

*Marc Boyer*

## A: NOTES HISTORIQUES

### 1884-1901: Ministère de l'Intérieur

La nomination du premier surintendant des Mines pour le Manitoba et les régions du Nord-Ouest est ainsi justifiée par le ministre de l'Intérieur dans son rapport annuel pour l'année 1884: "La facilité d'accès aux mines, dans la région du Nord-Ouest, par le moyen du Chemin de fer Pacifique, ouvert aujourd'hui jusqu'au delà de la ligne de faite des montagnes Rocheuses, et l'importance croissante de ces richesses minérales, ont rendu nécessaire la nomination d'un surintendant. M. William Pearce, inspecteur des agences des terres fédérales, a été choisi pour remplir le nouvel emploi."

M. Pearce fut surintendant jusqu'au 5 juin 1901 alors qu'il fut promu au poste d'inspecteur en chef des arpentages.

L'histoire de la Division des Ressources minérales remonte à 1886, quand la Division des Statistiques minérales et des Mines de la Commission géologique du Canada fut organisée pour recueillir les statistiques et émettre des rapports annuels sur les industries minérales du Canada.

La nomination, le 5 juin 1901, du professeur Eugène Haanel, Ph.D., minéralogiste de renom, au poste de surintendant des mines, marque une nouvelle étape dans l'histoire de la Division des mines; Le sous-ministre de l'Intérieur, dans son rapport annuel pour l'année 1900-1901 explique ainsi cette nomination d'un spécialiste: "Vu le développement récent de l'industrie minière dans le Yukon et dans d'autres régions où le terrain est sous le contrôle du gouvernement canadien, il devenait nécessaire de nommer un employé spécial dont les connaissances scientifiques et l'expérience en matière minière le rendissent compétent pour cet emploi particulier."

Le nouveau surintendant devait organiser la division pour répondre aux nouvelles exigences et était chargé de la compilation des renseignements exacts et des statistiques officielles concernant les mines dans tout le Canada.

Les premiers rapports de la Division des mines parurent dès 1902.

### 1907-1936: Ministère des Mines

Le premier ministère des Mines fut créé par la "Loi de la géologie et des mines" sanctionnée le 27 avril 1907 (chapitre 29 des Statuts du Canada, 1907). Le ministère comprend deux sections, l'une appelée Section des Mines, et l'autre, Service géologique (1907, c.29, a. 5).

En vertu d'un arrêté en conseil du 15 mai 1907, la Division des mines du ministère de l'Intérieur fut transférée au nouveau ministère des Mines et le Docteur Eugène Haanel fut nommé peu après, directeur de la Division.

En 1907 la Division des Statistiques minérales et des Mines fut transférée pour devenir le noyau de la nouvelle Division des Mines créée sous le nom de la Division des Ressources minérales et des Statistiques.



D'après la loi (1907, c.29, a. 6.), les fonctions de la section des Mines sont: a) de recueillir et publier des statistiques complètes sur la production minérale et les industries minières et métallurgiques du Canada, et toutes informations, au sujet de ses minéraux économiques, se rapportant aux procédés et aux travaux liés à leur utilisation, b) de se renseigner en détail sur les camps miniers et les régions contenant des minéraux économiques ou des dépôts d'autres substances économiques, c) de faire les recherches chimiques, mécaniques et métallurgiques jugées utiles pour aider l'industrie minière et métallurgique du Canada.

## **1936-1949: Ministère des Mines et des Ressources**

Le ministère des Mines et des Ressources, créé le 1<sup>er</sup> décembre 1936, en vertu du chapitre 33 des Statuts du Canada de 1936 se compose de cinq divisions dont les fonctions sont celles des anciens ministères des Mines (Division des Mines et de la Géologie), de l'Intérieur (Division des Terres, Parcs et Forêts et des Arpentages et du Génie), des Affaires Indiennes (Division des Affaires Indiennes) et de l'Immigration (Division de l'Immigration).

La division des Mines et de la Géologie remplit les fonctions et accomplit le travail de l'ancien ministère des Mines; elle exécute également les levés topographiques aériens et terrestres dont était chargé auparavant le Service des levés topographiques et aériens de l'ancien ministère de l'Intérieur.

Cette division comprend maintenant quatre services principaux: le Service de Géologie et de Topographie qui remplace l'ancien Bureau de la Géologie appliquée, le Musée national du Canada, le Service des Mines qui remplace l'ancienne Division des Mines, et la Commission fédérale du Combustible.

## **1949- : Ministère des Mines et des Relevés techniques**

Le ministère des Mines et des Relevés techniques a été créé par une loi du Parlement (13 George VI, chapitre 17) qui a reçu la sanction royale le 10 décembre 1949 et est entrée en vigueur par l'arrêté en conseil C.P. 2/330 du 20 janvier 1950. Sa création a résulté de l'organisation d'anciens ministères de l'État en trois nouveaux ministères.

Comme il est présentement constitué, le ministère des Mines et des Relevés techniques forme un organisme complet qui a pour fonction première d'apporter une aide technique à l'exploitation des ressources minérales du Canada au moyen d'études, d'investigations et de recherches dans le domaine de la géologie, de la préparation mécanique du minerai et de la métallurgie, ainsi que dans les relevés topographiques, géodésiques et autres.

Le ministère compte six sections à savoir: la Direction des levés et de la cartographie, la Commission géologique du Canada, la Direction des Mines, les Observatoires fédéraux, la Direction de la géographie et la Direction des Sciences marines.

## 1956

Le 26 juin 1956, la Division des Ressources minérales fut transférée de la Direction des Mines au Bureau du sous-ministre des Mines et Relevés techniques par le Directeur général des Services scientifiques. Ce changement dans l'organisation provient de ce que la Division des Ressources minérales préparait ses propres séries de publications séparées et distinctes des séries de la Direction des mines.

## 1959

Une réorganisation regroupa une majeure partie des fonctions de la Direction des mines et trois nouvelles divisions: la Division du traitement des minéraux, la Division de la métallurgie extractive et la Division des sciences minéralogiques. En plus de ces divisions, la Direction des mines se compose de la Division de la métallurgie physique, la Division des combustibles et des techniques minières et la Division des services techniques.

## B: FONCTIONS DE LA DIRECTION DES MINES

La **Direction des mines** s'intéresse surtout aux problèmes techniques de l'industrie minérale et possède des laboratoires bien outillés pour faire l'épreuve du minerai, la préparation mécanique des minéraux, les recherches concernant le combustible, la céramique, la radioactivité, les eaux industrielles et la métallurgie physique afin de résoudre ces problèmes. L'étendue de son activité est aussi considérable que les besoins techniques de l'industrie qu'elle dessert. Son domaine comprend les épreuves relativement secondaires concernant les sables jusqu'à la recherche fondamentale des métaux rares ainsi que les investigations courantes jusqu'aux tâches importantes et spécialisées se rattachant à la solution de tous les problèmes métallurgiques de l'entreprise d'énergie atomique à Chalk-River.

Dans ce vaste champ d'action, on peut mentionner: les travaux d'analyse de minerais dont le but principal est d'élaborer et d'améliorer les méthodes de traitement et d'aider ainsi à diminuer le coût du bocardage; les investigations relatives aux minéraux industriels visant en grande partie à une utilisation plus absolue des sources canadiennes de ces minéraux; l'activité dans les laboratoires céramiques; les études compliquées faites dans les laboratoires spectrographiques et minéralogiques; les recherches ayant trait aux combustibles canadiens; les analyses et autres travaux concernant les minéraux radioactifs et les investigations variées en métallurgie physique.



## FONCTIONS DE LA DIVISION DES RESSOURCES MINÉRALES

L'activité de la Division s'étend sur les ressources minérales, l'économie minérale, la législation minérale, la taxation minérale et les champs administratifs du gouvernement. La Division remplit, au sein du Ministère des Mines et des Relevés techniques, le rôle important de fournir des renseignements et des conseils aux officiers supérieurs du ministère et du gouvernement sur les matières affectant la politique minérale canadienne. La Division collecte, enregistre, compile, prépare l'information et donne des conseils sur les ressources minérales pour l'usage du ministère et divers autres ministères, des Corporations de la Couronne, des ambassades étrangères, de l'industrie privée et des particuliers; des Compagnies minières et d'huile; sur les aspects techniques et économiques d'exploration, de développement, de production et du marché; sur la législation minière industrielle et sur la taxation. Elle rédige des études techniques et économiques sur toutes les phases de l'industrie minérale canadienne et maintient un registre considérable sur les industries minérales des pays étrangers. La Division est responsable de l'application de la Loi d'urgence sur l'aide à l'exploitation des mines d'or.

## **PART II**

### **Mines Branch Publications**

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# REPORTS AND MAPS

## RAPPORTS ET CARTES

**Reports and magnetic survey maps of economic interest published by the Mines Branch. No. 1-865, 1902-1959.**

**Rapports de la Direction des mines. N° 1-865, 1902-1959.**

*Note.—Tous les rapports de la Division des mines n'ont pas été publiés en français. Dans la liste complète qui suit les rapports en anglais ou en français figurent sous leur numéro de série respectif et la référence à l'édition correspondante dans l'autre langue est donnée dans chaque cas.*

- 1.—**Report on copper belt and coal lands near Whitehorse, Y.T., and on the mining conditions of the Klondike, Y.T.,** by Eugene Haanel. 1903. 26p. 8 pls., 4 figs., 1 map. (in Sessional Paper No. 25-1903.)

*At head of title:* Appendix to the report of the Superintendent of Mines. (Annual report of the Department of the Interior, 1901-02, Part VI.)

Out of print.

Cat. No. M32-1

- 2.—**Report on the great landslide at Frank, Alberta, 1903,** by R. G. McConnell and R. W. Brock. 1904. 17p. 14 pls., 2 figs., 2 maps. (in Sess. Paper No. 25-1904).

Extract from the Annual report of the Department of the Interior, 1902-03, Part VIII.

Out of print.

Cat. No. M32-2

- 3.—**Report of the Commission appointed to investigate the different electro-thermic processes for the smelting of iron ores, and the making of steel, in operation in Europe,** by Eugene Haanel. 1904. 223p. 24 pls., 64 figs.

*Appendix.—Treatise on electro metallurgy of iron, by Henri Harmet.—The electrical manufacture of steel, by Gustave Gin.—Electro-thermic process for the reduction of iron ore, by Ernesto Stassano.—Lecture on the treatment of copper ores by the electric furnace, (Keller process), by M. Ch. Vattier.*

Voir le rapport n° 4 pour l'édition française.

Out of print.

Cat. No. M32-3

- 4.—**Rapport de la Commission nommée pour étudier les divers procédés électro-thermiques pour la réduction des minerais de fer et la fabrication de l'acier employés en Europe,** par Eugene Haanel. 1905. 24 planches, 64 figures.

See Report No. 3 for English edition.

Édition épuisée.

N° de cat. M32-4F

- 5.—**On the location and examination of magnetic ore deposits by magnetometric measurements,** by Eugene Haanel. 1904. 132p. 13 pls., 54 figs.

Out of print.

Cat. No. M32-5

- 6.—**Calabogie mine, Bagot township, Renfrew County, Ontario; magnetic survey map, vertical intensity,** by E. Nystrom. 1904. 60' : 1".

See also map No. 249.

Out of print.

Cat. No. M32-6



# PUBLICATIONS DE LA DIRECTION DES MINES

## Reports and maps—Rapports.—Continued—Suite.

- 7.—Preliminary report on the limestones and the lime industry of Manitoba, by J. Walter Wells. 1905. 68p. 8 pls., tables.  
Out of print. Cat. No. M32-7
- 8.—Preliminary report on the industrial value of the clays and shales of Manitoba, by J. Walter Wells. 1905. 41p. 9 pls., tables.  
Out of print. Cat. No. M32-8
- 9.—Preliminary report on the raw materials, manufacture, and uses of hydraulic cements in Manitoba, by J. Walter Wells. 1905. 70p. 7 pls.  
Out of print. Cat. No. M32-9
- 10.—Mica: its occurrence, exploitation, and uses, by Fritz Cirkel. 1905. 148p. 1 pl., 38 figs., 2 maps.  
Voir le rapport n° 264 pour l'édition française. See also reports Nos. 118 and 701.  
Out of print. Cat. No. M32-10
- 11.—Asbestos: its occurrence, exploitation and uses, by Fritz Cirkel. 1905. 170p. 19 pls., 1 map.  
See also Reports Nos. 69 and 707.  
Out of print. Cat. No. M32-11
- 12.—Report of the Commission appointed to investigate the zinc resources of British Columbia and the conditions affecting their exploitation, by Walter Renton Ingalls, and others. 1905. 399p. 68 pls., 32 figs., 2 maps.  
Out of print. Cat. No. M32-12
- 13.—Belmont iron mines, Belmont township, Peterborough county, Ontario; magnetic survey map, vertical intensity, by B. F. Haanel. 1905. 60' : 1".  
See also map No. 186.  
Out of print. Cat. No. M32-13
- 14.—Wilbur mine, Lavant township, Lanark county, Ontario; magnetic survey map, by B. F. Haanel. 1905. 60' : 1".  
See also map No. 441.  
Out of print. Cat. No. M32-14
- 15.—Iron ore deposits at Austin Brook, Gloucester county, New Brunswick; magnetic survey map, vertical intensity, by E. Lindeman. 1906.  
Out of print. Cat. No. M32-15
- 16.—Report of the experiments at Sault Ste. Marie, Ontario, under Government auspices, in the smelting of Canadian iron ores by the electro-thermic process, by Eugene Haanel. 1907. 140p. 23 pls., 21 figs., tables.  
This includes the Preliminary Report No. 16A, published in 1906.  
Out of print. Cat. No. M32-16
- 16A.—Preliminary report on the experiments made at Sault Ste. Marie, Ont., under Government auspices, in the smelting of Canadian iron ores by the electro-thermic process, by Eugene Haanel. 1906. 23p. 4 pls., tables.  
See also report No. 16.  
Out of print. Cat. No. M32-16A

## MINES BRANCH PUBLICATIONS

### Reports and maps—Rapports.—Continued—Suite.

- 17.—**Report on the present and prospective output of the mines of the silver-cobalt ores of the Cobalt district**, by Eugene Haanel. 1907. 13p.  
Out of print. Cat. No. M32-17
- 18.—**Graphite: its properties, occurrence, refining, and uses**, by Fritz Cirkel. 1907. 307p. 20 pls., 52 figs., 44 tables, 9 maps.  
Voir le rapport n° 202 pour l'édition française. See also report No. 511.  
Out of print. Cat. No. M32-18
- 19.—**Peat and lignite: their manufacture and uses in Europe**, by E. Nystrom. 1908. 247p. 34 pls., 228 figs., tables.  
Voir le rapport n° 198 pour l'édition française.  
Out of print. Cat. No. M32-19
- 20.—**Report on the iron ore deposits of Nova Scotia (Part I)**, by J. E. Woodman. 1909. 226p. 63 pls. or maps.  
Out of print. Cat. No. M32-20
- 21.—**Summary report of the Mines Branch of the Department of Mines for the fiscal year 1907-08**. 1908. 100p. 1 fig., tables.  
(Sess. Paper No. 26a-1908.)  
*Contents.—Director's report, by Eugene Haanel.—Special reports: Iron ore deposits of Vancouver and Texada islands, by E. Lindeman; Alleged iron ore deposits of Ontario and Quebec, by B. F. Haanel; Visit of gas producer plants in and around New York, by B. F. Haanel; Mineral production in 1907 (see report No. 27).—Appendices: Comparison of induction furnaces employed for production of steel, by A. Grönwall; Experiments in intensified nitrification, by means of peat beds, by Muntz and Lainé.*  
Voir le rapport n° 21A pour l'édition française.  
Out of print. Cat. No. M32-21
- 21A.—**Rapport sommaire de la Division des mines du ministère des Mines pour l'exercice 1907-08**. 1908. 111p. 1 figure, tableaux. (Doc. parl. n° 26a-1908.)  
*Sommaire.—Rapport du directeur, par Eugene Haanel.—Rapports spéciaux: Gisements de fer de l'île de Vancouver, par E. Lindeman; Gisements de fer dans les provinces de Québec et Ontario, par B. F. Haanel; Installations de gazogères aux États-Unis; par B. F. Haanel; Rapport préliminaire sur la production minérale du Canada en 1907, par John McLeish.—Appendices: Comparaisons des divers fours à induction usités dans la fabrication de l'acier, par A. Grönwall; Extrait des travaux de MM. Müntz et Lainé sur la nitrification intensive.*  
See report No. 21 for English edition.  
Édition épuisée. N° de cat. M32-21F
- 22.—**Report on the examination of some iron ore deposits in the districts of Thunder Bay and Rainy River, Province of Ontario**, by F. Hille. 1908. 65p. 7 pls., 18 figs. or maps.  
Out of print. Cat. No. M32-22
- 23.—**Report on the iron ore deposits along the Ottawa (Quebec side) and Gatineau rivers**, by Fritz Cirkel. 1909. 147p. 5 pls., 15 figs., 2 maps.  
See maps Nos. 53 and 54.  
Out of print. Cat. No. M32-23
- 24.—**Report on the mining and metallurgical industries of Canada, 1907-08**. 1908. 972p. 75 pls., 16 figs., 6 maps.  
See also report No. 597.  
\$1 Cat. No. M32-24



**Reports and maps—Rapports.—Continued—Suite.**

- 25.—**Report on the tungsten ores of Canada**, by T. L. Walker. 1909. 56p. 10 pls., 6 figs.

Voir le rapport n° 156 pour l'édition française.

Out of print.

Cat. No. M32-25

- 26.—**Annual report on the mineral production of Canada during the calendar year 1906**, by John McLeish. 1909. 182p. Tables. (Sess. Paper No. 26b-1908.)

Voir le rapport n° 26A pour l'édition française.

Out of print.

Cat. No. M32-26

- 26A.—**Rapport annuel de la production minérale du Canada, durant l'année 1906**, par John McLeish. 1909. 182p. Tableaux. (Doc. parl. n° 26b-1908.)

See report No. 26 for English edition.

Édition épuisée.

N° de cat. M32-26F

- 27.—**Preliminary report on the mineral production of Canada in 1907**, by John McLeish. 1908. 15p. Tables.

Separate part of report No. 21.

Out of print.

Cat. No. M32-27

- 27A.—**Preliminary report on the mineral production of Canada in 1908**, by John McLeish. 1909. 16p. Tables.

Separate part of report No. 28.

Out of print.

Cat. No. M32-27A

- 28.—**Summary report of the Mines Branch of the Department of Mines for the nine months ending December 31, 1908**. 1909. 96p. Tables. (Sess. Paper No. 26a-1909.)

Contents.—*Director's general report*, by Eugene Haanel.—*Coal tests at McGill University*, by J. B. Porter.—*Reports: Chemical Laboratories*, by F. G. Wait; *Division of Mineral Resources and Statistics*, by John McLeish; *Assay Office, Vancouver*, by G. Middleton.—*Preliminary reports on field work: Tungsten ores of Canada*, by T. L. Walker; *Chrome iron ores and asbestos in province of Quebec*, by Fritz Cirkel; *Iron ores of Nova Scotia, part II*, by J. E. Woodman; *Iron ore deposits in New Brunswick and Northwestern Ontario*, by E. Lindeman; *Magnetometric survey of the Huron Mountain mine*, by B. F. Haanel; *Magnetite iron ore deposits in Mayo Township, Ont.*, by Howells Fréchette; *Smelting of titaniferous iron ores in the electric furnace at Welland, Ont.*, by B. F. Haanel; *Coal samples for testing Canadian coals at McGill University*, by Theophile Denis; *Tests made in Scotland of oil-shales sent from New Brunswick*, by R. W. Ells; *Peat bogs of Canada*, by E. Nystrom and A. Anrep; *Coal and coal mining in Nova Scotia*, by Joseph G. S. Hudson; *Gypsum deposits and industry of Nova Scotia and New Brunswick*, by W. F. Jennison; *Visit to some producer gas plants in and around Berlin, Germany*, by B. F. Haanel.—*Appendices: Progress of electric smelting in Norway*, by O. Stalhane; *Mineral production, 1908* (see report No. 27A).

Voir le rapport n° 28A pour l'édition française.

Out of print.

Cat. No. M32-28

- 28A.—**Rapport sommaire de la Division des Mines du ministère des Mines, pour les neuf mois finissant le 31 décembre 1908**. 1909. 110p. Tableaux (Doc. parl. n° 26a-1909.)

Sommaire.—*Rapport général du directeur*, par Eugene Haanel.—*Rapports: Essais de charbon à l'université McGill*, par J. B. Porter; *Laboratoires de chimie*, par F. G. Wait; *Bureau des ressources minières et des statistiques*, par John McLeish; *Essayerie du Dominion à Vancouver*, par G. Middleton.—*Rapports préliminaires des travaux de recherches: Minerais de tungstène*, par T. L. Walker; *Minerais de fer chromé et amiante*

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de la province de Québec, par Fritz Cirkel; Minerais de fer de la Nouvelle-Écosse, 2<sup>e</sup> campagne, par J. E. Woodman; Gisements de minerai de fer au Nouveau-Brunswick et dans le nord-ouest d'Ontario, par Einar Lindeman; Relevé magnétique du mont Huron, par B. F. Haanel; Gisements de magnétite du township Mayo, Ont., par Howells Fréchette; Essai de fonte de minerai de fer titanifère dans le four électrique de Welland, Ont., par B. F. Haanel; Prélèvement d'échantillons de charbon pour les essais de charbons canadiens à l'université McGill, par Théophile Denis; Essais effectués en Écosse, sur les schistes pétrolifères envoyés du Nouveau-Brunswick, par R. W. Ells; Les tourbières du Canada, par E. Nystrom et S. A. Anrep; La houille et l'extraction de la houille en Nouvelle-Écosse, par Joseph G. S. Hudson; Les dépôts et l'industrie du gypse en Nouvelle-Écosse et au Nouveau-Brunswick, par W. F. Jennison; Visite à quelques installations de gazogène dans la cité de Berlin et aux alentours, par B. F. Haanel.—**Annexes:** Progrès de la fonte électrique en Norvège, par O. Stalhane; Production minérale en Canada 1907-08, par John McLeish.  
See report No. 28 for English edition.  
Édition épuisée.

N<sup>o</sup> de cat. M32-28F

- 29.—**Report on the chrome iron ore deposits in the Eastern Townships**, province of Quebec, by Fritz Cirkel. 1909. 141p. 11 pls., 15 figs., tables, 1 map.

Appendices: I—Notes on the metallurgy of chromium, by W. Borchers. II—Experiments with chromite at McGill University under the direction of J. B. Porter.

Voir le rapport n<sup>o</sup> 226 pour l'édition française. See also map No. 57.

Out of print.

Cat. No. M32-29

- 30.—**Investigation of the peat bogs and peat fuel industry of Canada** during the season 1908-09, by Erik Nystrom and S. A. Anrep. Second edition. 1909. 25p. 6 maps. (Bulletin No. 1.)  
See maps Nos. 36, 37, 38, 39, 40, and 41.  
25¢.

Cat. No. M32-30

- 31.—**The production of cement in Canada during the calendar year 1908**, by John McLeish. 1909. 4p. Tables.  
Advance chapter of report No. 58.

Out of print.

Cat. No. M32-31

- 32.—**Report on the investigation of an electric shaft furnace, Domnarfvet, Sweden**, by Eugene Haanel. Second edition. 1909. 40p. 5 pls., 8 figs.  
25¢.

Cat. No. M32-32

- 33.—**Mayo township, lot 1, concession VI, Hastings county, Ontario; (magnetite occurrence) magnetometric survey map, vertical intensity**, by Howells Fréchette. 1909. 60':1"

See also map No. 191.

Out of print.

Cat. No. M32-33

- 34.—**Mayo township, lots 2 and 3, concession VI, Hastings county, Ontario; (magnetite occurrence) magnetometric survey map, vertical intensity**, by Howells Fréchette. 1909. 60':1".

See also map No. 191.

Out of print.

Cat. No. M32-34

- 35.—**Mayo township, lots 10, 11, and 12, concession IX, and lots 11 and 12, concession VIII, Hastings county, Ontario; (magnetite occurrence) magnetometric survey map**, by Howells Fréchette. 1909. 60':1".

See also map No. 191.

Out of print.

Cat. No. M32-35



**Reports and maps—Rapports.—Continued—Suite.**

- 36.—**Mer Bleue peat bog**, Gloucester township, Carleton county, and Cumberland township, Russel county, Ontario; **survey map**, by Erik Nystrom and A. Anrep. 1909. 1056':1".  
Accompanying report No. 30.  
Out of print. Cat. No. M32-36
- 37.—**Alfred peat bog**, Alfred and Caledonia townships, Prescott county, Ontario; **survey map**, by Erik Nystrom and A. Anrep. 1909. 1056':1".  
Accompanying report No. 30.  
Out of print. Cat. No. M32-37
- 38.—**Welland peat bog**, Wainfleet and Humberstone townships, Welland county, Ontario; **survey map**, by Erik Nystrom and A. Anrep. 1909. 1056':1".  
Accompanying report No. 30.  
Out of print. Cat. No. M32-38
- 39.—**Newington peat bog**, Osnabruck, Roxborough and Cornwall townships, Stormont country, Ontario; **survey map**, by Erik Nystrom and A. Anrep. 1909. 1056':1".  
Accompanying report No. 30.  
Out of print. Cat. No. M32-39
- 40.—**Perth peat bog**, Drummond township, Lanark county, Ontario; **survey map**, by Erik Nystrom and A. Anrep. 1909. 1056':1".  
Accompanying report No. 30.  
Out of print. Cat. No. M32-40
- 41.—**Victoria Road peat bog**, Bexley and Carden townships, Victoria county, Ontario; **survey map**, by Erik Nystrom and A. Anrep. 1909. 200':1".  
Accompanying report No. 30.  
Out of print. Cat. No. M32-41
- 42.—**The production of iron and steel in Canada during the calendar years 1907 and 1908**, by John McLeish. 1909. 35p. Tables.  
Advance chapter of report No. 58.  
Out of print. Cat. No. M32-42
- 43.—**The production of chromite in Canada during the calendar years 1907-08**, by John McLeish. 1909. 6p. Tables.  
Advance chapter of report No. 58.  
Out of print. Cat. No. M32-43
- 44.—**The production of asbestos in Canada during the calendar years 1907-08**, by John McLeish. 1909. 8 p. Tables.  
Advance chapter of report No. 58.  
Out of print. Cat. No. M32-44
- 45.—**The production of coal, coke, and peat in Canada during the calendar years 1907 and 1908**, by John McLeish. 1909. 34p. Tables.  
Advance chapter of report No. 58.  
Out of print. Cat. No. M32-45
- 46.—**Production of natural gas and petroleum in Canada during the calendar years 1907 and 1908**. 1909. 16p. Tables.  
Advance chapter of report No. 58.  
Out of print. Cat. No. M32-46

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## Reports and maps—Rapports.—Continued—Suite.

- 47.—Iron ore deposits of Vancouver and Texada islands, British Columbia, by Einar Lindeman. 1910. 29p. 5 maps.

See maps Nos. 48, 49, 50, 51 and 52.

Out of print.

Cat. No. M32-47

- 48.—Magnetic survey of Iron Crown claim at Klaanch River, Vancouver Island, B.C.; map of vertical intensity, by E. Lindeman. 1908. 60':1".

Accompanying report No. 17. See also map 442.

Out of print.

Cat. No. M32-48

- 49.—Magnetic survey of the Western Steel Iron claim at Sechart, Vancouver Island, B.C.; map of vertical intensity, by E. Lindeman. 1908. 60':1".

Accompanying report No. 47. See also map No. 438.

Out of print.

Cat. No. M32-49

- 50.—Vancouver Island, B.C.; index map to iron ore deposits of Vancouver and Texada islands, by E. Lindeman. 1910. 24m:1".

Accompanying report No. 47.

Out of print.

Cat. No. M32-50

- 51.—Iron mines, Texada Island, B.C.; map, by F. H. Shepherd. 1908. 500':1".

Accompanying report No. 47.

Out of print.

Cat. No. M32-51

- 52.—Sketch map of bog iron ore deposits, West Arm, Quatsino Sound, Vancouver Island, B.C., by L. Frank. 1908. 1000':1".

Accompanying report No. 47.

Out of print.

Cat. No. M32-52

- 53.—Iron ore occurrences, Ottawa and Pontiac counties, Quebec; map, by James White and Fritz Cirkel. 1908. 4m:1".

Accompanying report No. 23.

Out of print.

Cat. No. M32-53

- 54.—Iron ore occurrences, Argenteuil county, Quebec; map, by James White and Fritz Cirkel. 1908. 4m:1".

Accompanying report No. 23.

Out of print.

Cat. No. M32-54

- 55.—Joint report on the bituminous or oil-shales of New Brunswick and Nova Scotia, also, on the oil shale industry of Scotland. (Part I) Economics, and, (Part II) Geology, by R. W. Ells. 1909-1910. 1 vol.

Prepared in cooperation with the Geological Survey Branch.

Contents.—Part I: Report on tests made in Scotland of oil-shale sent from New Brunswick in the Spring of 1908, with a view of ascertaining its economic value: especially as regards the yield of crude oil, and sulphate of ammonia, by R. W. Ells; with in appendix: The technology of the Scottish shale oil industry, by W. A. Hamor. 1910. 61p. 15 pls., 6 figs., tables. (Mines Branch report 55).—Part II: Geological position and character of the oil-shale deposits of Canada, by R. W. Ells. 1909. 75p. Tables. (Geological Survey Branch report 1107.) Voir le rapport n° 56 pour l'édition française.

Out of print.

Cat. No. M32-55



Reports and maps—Rapports.—Continued—Suite.

- 56.—**Rapport conjoint sur les schistes bitumineux ou pétrolifères du Nouveau-Brunswick et de la Nouvelle-Écosse.** ainsi que sur l'industrie des schistes pétrolifères de l'Écosse. Première partie: Industrie; seconde partie: Géologie, par R. W. Ells. 1914. 65+86p. 15 planches, 6 figures, tableaux. (Rapport de la Commission géologique n° 1108.)

See report No. 55 for English edition.

Édition épuisée.

N° de cat. M32-56F

- 57.—**The productive chrome iron ore district of Quebec; map,** by Fritz Cirkel. 1909. 1m:1".

Accompanying report No. 29.

Out of print.

Cat. No. M32-57

- 58.—**Annual report on the mineral production of Canada during the calendar years 1907 and 1908,** by John McLeish. 1910. 286p. Tables.

See Reports No. 31, 42, 43, 44, 45, and 46, for advance chapters.

Out of print.

Cat. No. M32-58

- 59.—**Report of analysis of ores, non-metallic minerals, fuels, etc.,** made in the Chemical Laboratories during the years 1906, 1907, 1908, arranged by F. G. Wait. 1909. 126p. 2 pls., tables.

Appendix: *Description of commercial methods and apparatus for the analysis of oil-shales*, by H. A. Leverin.

25¢.

Cat. No. M32-59

- 60.—**Bristol mine, Pontiac county, Quebec; magnetometric survey map, vertical intensity,** by E. Lindeman. 1909. 200':1".

Accompanying report No. 67. See also map No. 443.

Out of print.

Cat. No. M32-60

- 61.—**Bristol mine, Pontiac county, Quebec; topographical map,** by E. Lindeman. 1909. 200':1".

Accompanying report No. 67.

Out of print.

Cat. No. M32-61

- 62.—**Preliminary report on the mineral production of Canada, during the calendar year 1909,** by John McLeish. 1910. 18p. Tables.

Out of print.

Cat. No. M32-62

- 63.—**Summary report of the Mines Branch of the Department of Mines for the calendar year 1909.** 1910. 181p. 4 pls., tables. (Sess. Paper No. 26a-1910.)

Contents.—*Director's general report*, by Eugene Haanel.—*Coal test at McGill University*, by J. B. Porter.—*Reports on work: Chemical Laboratories*, by F. G. Wait; *Division for Mineral Resources and Statistics*, by John McLeish; *Dominion of Canada Assay Office, Vancouver*, by G. Middleton.—*Preliminary reports on field work: Molybdenum ores of Canada*, by T. L. Walker; *Magnetic concentration of iron and copper nickel ores*, by Geo. C. Mackenzie; *Manganese ore deposits in Nova Scotia and New Brunswick*, by Théophile C. Denis; *Iron ores and metallurgical limestones of Nova Scotia, 3rd season*, by J. E. Woodman; *Magnetic survey of some mining locations at Temagami, Ont.*, by Einar Lindeman; *copper mining industry in Quebec*, by Alfred W. G. Wilson; *Nicolet antimony mine, Spalding iron locations, talc and soapstone in Megantic county, Quebec*, by Alfred G. Wilson; *Iron ore properties in Northeastern Ontario*, by Howells Fréchette; *Gypsum resources of Nova Scotia*, by W. F. Jennison; *Asbestos deposits in the province of Quebec*, by Fritz

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*Cirkel; Iron ore occurrences in the provinces of Ontario, Quebec and New Brunswick, by B. F. Haanel; Harris peat gas process, by B. F. Haanel; Peat bogs of Canada, by A. Anrep; Coal mining in Nova Scotia, by Joseph G. S. Hudson; Accidents in mines, by Joseph G. H. Hudson.—Appendices: Mineral production in Canada in 1909 (See report No. 62); Description of commercial methods and apparatus for the analysis of oil-shales, by Harold Leverin; Prevention of mine explosions; Examination of magnetic ore deposits, by Howells Fréchette.*

Voir le rapport n° 63A pour l'édition française.

Out of print.

Cat. No. M32-63

- 63A.—Rapport sommaire de la Division des mines du ministère des Mines pour l'année civile 1909. 1910. 176p. 4 planches, tableaux. (Doc. sessionnel n° 26a-1910.)**

*Sommaire.—Rapport général du directeur, par Eugene Haanel.—Rapports: Essais de charbon à l'Université McGill, par J. B. Porter; Laboratoires de chimie, par F. G. Wait; Bureau des ressources et statistiques minières, par John McLeish; Essayerie de la Puissance du Canada, Vancouver, par G. Middleton.—Rapports préliminaires des travaux de recherches: Minerais de molybdène au Canada, par T. L. Walker; Concentration magnétique des minerais de fer et de cuivre-nickel, par Geo. C. Mackenzie; Gisements de minerai de manganèse en Nouvelle-Écosse et Nouveau-Brunswick, par Théophile C. Denis; Minerais de fer et calcaires métallurgiques de Nouvelle-Écosse, 3<sup>e</sup> campagne, par J. E. Woodman; Relevé magnétique de quelques emplacements miniers à Temagami, Ont., par Einar Lindeman; Industrie des mines de cuivre dans Québec, par Alfred W. G. Wilson; Mine d'antimoine de Nicolet, emplacement de fer de Spalding, et, existence de talc et de saponite dans le comté de Mégantic, Québec, par Alfred W. G. Wilson; Gîtes de minerai de fer dans le nord-est d'Ontario, par Howells Fréchette; Ressources de gypse de la Nouvelle-Écosse, par W. F. Jennison; Gisements d'amianté de la province de Québec, par Fritz Cirkel; Gîtes de minerai de fer signalés dans les provinces d'Ontario, Québec et Nouveau-Brunswick, par B. F. Haanel; Recherche sur le procédé de gaz de tourbe de Harris, par B. F. Haanel; Tourbières du Canada, par A. Anrep; Extraction de la houille en Nouvelle-Écosse, et, Accidents dans les mines par Joseph G. S. Hudson.—Annexes: Rapport préliminaire de la production minérale, 1909, par John McLeish; Méthode commerciale pour l'analyse des schistes pétrolifères, par H. Leverin; Prévention des explosions de mines; Examen des gisements de minerai magnétique, par Howells Fréchette.*

See report No. 63 for English edition.

Édition épuisée.

N° de cat. M32-63F

- 64.—Index map of part of the province of Nova Scotia showing distribution of occurrences of gypsum, by W. F. Jennison. 1911. 15m:1'.**

Accompanying report No. 84.

Out of print.

Cat. No. M32-64

- 65.—Index map of part of the province of New Brunswick showing distribution of occurrences of gypsum, by W. F. Jennison. 1911. 20m:1".**

Accompanying report No. 84.

Out of print.

Cat. No. M32-65

- 66.—Map of the Magdalen Islands showing gypsum deposits, by W. F. Jennison. 1911. 1½m:1".**

Accompanying report No. 84.

Out of print.

Cat. No. M32-66



Reports and maps—Rapports.—Continued—Suite.

- 67.—Iron ore deposits of the Bristol mine, Pontiac County, Que.; magnetometric survey, etc., by E. Lindeman: **Magnetic concentration of ores**, by Geo. C. Mackenzie. 1910. 15p. 2 pls., 2 figs., 2 maps. (Bulletin No. 2.)  
Voir le rapport n° 314 pour l'édition française. See maps No. 60 and 61.  
20¢. Cat. No. M32-67
- 68.—Recent advances in the construction of electric furnaces for the production of pig iron, steel, and zinc, by Eugene Haanel. 1910. 76p. 1 pl., 17 figs. (Bulletin No. 3.)  
Voir le rapport n° 263 pour l'édition française.  
Out of print. Cat. No. M32-68
- 69.—Chrysotile-asbestos: its occurrence, exploitation, milling, and uses, by Fritz Cirkel. Second edition. 1910. 316p. 66 pls., 88 figs., 2 maps.  
Appendix: *The testing of heat-insulating materials*, by Frederick Bacon.  
Voir le rapport n° 81 pour l'édition française. See also report No. 707 and maps No. 78 and 86.  
Out of print. Cat. No. M32-69
- 70.—Northeast Arm iron range, Lake Temagami, Nipissing district, Ontario; magnetometric survey map, by E. Lindeman. 200' : 1".  
See Summary report No. 63. See also map No. 444.  
Out of print. Cat. No. M32-70
- 71.—Investigation of the peat bogs and peat industry of Canada during the season 1909-10, by Aleph Anrep. Second edition. 1910. 44p. 17pls., 6 figs., 6 maps. (Bulletin No. 4.)  
Appendices.—Mr. Alf. Larson's paper on Dr. M. Ekenberg's wet-carbonizing process, translated by A. Anrep from "*Teknisk Tidskrift*", No. 12, December 26, 1908.—Lieut. Ekelund's pamphlet entitled "*A solution of the peat problem*", 1909, describing the Ekelund process for the manufacture of peat powder, translated by Harold A. Leverin. (Note: The first edition does not contain the translation of Lieut. Ekelund's pamphlet.)  
Voir le rapport n° 196 pour l'édition française.  
See maps No. 72, 73, 74, 75, 76, and 77.  
Out of print. Cat. No. M32-71
- 72.—Brunner peat bog, Perth county, Ontario; map, by A. Anrep. 1910. 1056' : 1".  
Accompanying report No. 71.  
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- 73.—Komoka peat bog, Middlesex county, Ontario; map, by A. Anrep. 1910. 1000' : 1".  
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- 74.—Brockville peat bog, Leeds county, Ontario; map, by A. Anrep. 1910. 1000' : 1".  
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- 75.—Rondeau peat bog, Kent county, Ontario; map, by A. Anrep. 1910. 1056' : 1".  
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- 77.—**Profile of main ditch**, Government peat bog, Alfred, Ontario; **map**, by A. Anrep. 1910.  
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- 78.—**Asbestos region**, Quebec; **map**, by Fritz Cirkel. 1910. 1m : 1".  
Accompanying report No. 69.  
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- 79.—**The production of iron and steel in Canada during the calendar year 1909**, by John McLeish. 1910. 35p. Tables.  
Advance chapter of report No. 88.  
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- 80.—**The production of coal and coke in Canada during the calendar year 1909**, by John McLeish. 1910. 36p. Tables.  
Advance chapter of report No. 88.  
10¢. Cat. No. M32-80
- 81.—**Amiante-chrysotile; gisements, exploitation, ateliers de préparation et usages**, par Fritz Cirkel. 2<sup>e</sup> édition. 1911. 321p. 66 planches, 88 figures, 2 cartes.  
Appendice.—*De l'essai de substances isolatrices de la chaleur*, par Frédéric Bacon.  
See report No. 69 for English edition.  
Édition épuisée. N<sup>o</sup> de cat. M32-81F
- 82.—**Magnetic concentration experiments** with: iron ores of the Bristol Mines, Que.; iron ores of the Bathurst Mines, N.B.; a copper nickel ore from Nairn, Ontario, by George C. MacKenzie. 1910. 28p. 4 figs., tables. (Bulletin No. 5.)  
Out of print. Cat. No. M32-82
- 83.—**An investigation of the coals of Canada with reference to their economic qualities**, as conducted at McGill University under the authority of the Dominion Government, by J. B. Porter, R. J. Durley and others. 1912. 6 volumes.  
Short title: *Coals of Canada: an economic investigation*.  
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## CONTENTS

- Vol. 1.—**Report, part 1 to 6**. 243p. 46 pls., 31 figs., tables, 5 maps.  
See maps No. 95, 96, 97, 98, and 99.  
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- Vol. 2.—**Report, part 7 to 9**. 189p. 17 pls., 25 figs., tables.  
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- Vol. 3.—**Appendix 1: Detailed results of the coal washing trials**, by J. B. Porter. 168p. Tables, graphs.  
Out of print. Cat. No. M32-83/3



**Reports and maps—Rapports.—Continued—Suite.**

Vol. 4.—Appendix 2: **Detailed results of the boiler trials**, by R. J. Durley. 352p. Tables, graphs.

Out of print. Cat. No. M32-83/4

Vol. 5.—Appendix 3: **Detailed results of the gas producer trials**, by R. J. Durley. 318p. Tables, graphs.

Out of print. Cat. No. M32-83/5

Vol. 6.—Appendix 4: **Manufacture and testing of coke**, by J. B. Porter and E. Stansfield. Appendix 5: **Work of the chemical laboratory**, by Edgar Stansfield. 120p. 3 pls., 6 figs., tables.

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Vol. 1, part 1.—**Introductory**, by J. B. Porter. 18p.

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Vol. 1, part 2.—**The coal fields of Canada**, by T. C. Denis. Pp. 21-126. 27 pls., tables.

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Vol. 1, part 3.—**Collecting the coal samples**, by T. C. Denis and E. Stansfield. Pp. 129-153.

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Vol. 1, part 4.—**Sampling in the testing plant and laboratory**, by J. B. Porter. Pp. 157-160. 3 pls., 1 figure.

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Vol. 1, part 6.—**Manufacture and testing of coke**, by E. Stansfield and J. B. Porter. Pp. 205-233. 3 figs., tables.

25¢. Cat. No. M32-83/16

**Separate parts of volume 2**

Vol. 2, part 7.—**Boiler tests**, by R. J. Durley. 51p. 1 pl., 6 figs., tables.

25¢. Cat. No. M32-83/27

Vol. 2, part 8.—**Gas producer tests**, by R. J. Durley. Pp. 55-118. 5 pls., 12 figs., tables.

25¢. Cat. No. M32-83/28

Vol. 2, part 9.—**Work of the chemical laboratory**, by Edgar Stansfield. Pp. 121-184. 11 pls., 7 figs., tables.

25¢. Cat. No. M32-83/29

84.—**Report on the gypsum deposits of the Maritime Provinces**, by W. F. Jennison. 1911. 171p. 36 pls., 19 figs., 3 maps.

Voir le rapport n° 233 pour l'édition française. See also reports No. 245 and 714 and maps No. 64, 65, and 66.

Out of print. Cat. No. M32-84

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### Reports and maps—Rapports.—Continued—Suite.

- 85.—The production of cement, lime, clay products, stone, and other structural materials in Canada during the calendar year 1909, by John McLeish. Ottawa, 1910. 47p. Tables.

Advance chapter of report No. 88.

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- 86.—General distribution of serpentine in the Eastern Townships, Quebec; map, by Fritz Cirkel. 1910. 20m:1".

Accompanying report No. 69.

Out of print. Cat. No. M32-86

- 87.—Not published.

- 88.—Annual report on the mineral production of Canada during the calendar year 1909, by John McLeish. 1911. 291p. Tables.

Out of print.

Cat. No. M32-88

- 89.—Proceedings of Conference on proposed legislation to regulate the manufacture, importation, and testing of explosives, held in Ottawa, Sept., 23 and 30, 1910. Reprint, 1911. 49p.

10¢.

Cat. No. M32-89

- 90.—The exploitation of our peat bogs for the production of fuel for domestic and industrial purposes, by Eugene Haanel. 1910. 8p. (Reprint of presidential address delivered at the fourth annual meeting of the American Peat Society, held at Ottawa, July 25, 1910.)

Out of print.

Cat. No. M32-90

- 91.—Not published.

- 92.—Report on the explosives industry in the Dominion of Canada, by Arthur Desborough. 2<sup>nd</sup> edition. 1911. 16p.

10¢.

Cat. No. M32-92

- 93.—Report on the molybdenum ores of Canada, by T. L. Walker. 1911. 64p. 14 pls., 10 figs.

Voir le rapport n° 197 pour l'édition française.

Out of print.

Cat. No. M32-93

- 94.—Cobalt, Gowganda, Shiningtree and Porcupine districts, Temiscaming county, Ontario; map, by L. H. Cole. 1911. 7m:1".

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- 95.—General map of Canada, showing coal and lignite fields, by J. B. Porter. 1911. 100m:1".

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- 96.—Coal fields of Nova Scotia and New Brunswick; general map, by J. B. Porter. 1911. 12m:1".

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- 97.—Coal fields in Alberta, Saskatchewan, and Manitoba; general map, by D. B. Dowling. 1911. 35m:1".

Accompanying report No. 83, Vol. I.

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- 98.—**Coal fields in British Columbia; general map**, by J. B. Porter. 1911. 35m:1".

Accompanying report No. 83, Vol. I.

Out of print.

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- 99.—**Coal fields in Yukon Territory; general map**, by J. B. Porter. 1911. 32m:1".

Accompanying report No. 83, Vol. I.

Out of print.

Cat. No. M32-99

- 100.—**Report on the building and ornamental stones of Canada; Vol. I; Ontario**, by W. A. Parks. 1912. 376p. 77 pls., 21 figs, tables.

*Contents.—Part I: Introduction containing general information with regard to the quarrying, testing and handling of stones.—Part II: Systematic description of the building and ornamental stones of Ontario. Voir le rapport n° 100A pour l'édition française. See also reports No. 203, 279, 388 and 452.*

Out of print.

Cat. No. M32-100

- 100A.—**Rapport sur les pierres de construction et d'ornement du Canada; Vol. I; Ontario**, par W. A. Parks. 1912. 437p. 77 planches, 21 figures, tableaux.

*Sommaire.—Partie I: Introduction contenant des renseignements généraux sur l'exploitation, l'essai et la manutention des pierres.—Partie II: Description systématique des pierres de construction et d'ornement de l'Ontario.*

See report No. 100 for English edition. Voir aussi rapports nos 280, 389.

Édition épuisée.

N° de cat. M32-100F

- 101.—Not published.

- 102.—**Preliminary report on the mineral production of Canada during the calendar year 1910**, by John McLeish. 1911. 21p. Tables.

Part of report No. 103.

Out of print.

Cat. No. M32-102

- 103.—**Summary report of the Mines Branch of the Department of Mines for the calendar year 1910**. 1911. 243p. 16 pls., 1 fig., tables, 1 map. (Sess. paper No. 26a-1911.)

*Contents.—Director's general report, by Eugene Haanel.—Reports: Chemical Laboratories, by F. G. Wait; Statistical Division, by John McLeish; Assay Office, by G. Middleton; Fuel Testing Station, by B. F. Haanel; Metallurgical Laboratory, by G. C. Mackenzie.—Preliminary reports on field work: Molybdenum ores of Ontario and British Columbia, by T. L. Walker; Copper mining industry in Ontario and Maritime Provinces, by Alfred W. G. Wilson; The Austin-Brook iron-bearing district, New Brunswick, by E. Lindeman; Iron ore deposits at Torbrook, Annapolis Co., N.S., and, Magnesite deposits, township of Grenville, Argenteuil Co., Que., by Howells Fréchette; Tin-ore, in the vicinity of Arnprior, Ont., Cobalt-silver district, Gowganda and Elk Lake silver district, Shiningtree and Rosey Creek Silver district, Porcupine gold district, by L. H. S. Cole; Mica deposits of Ontario and Quebec, by Hugh S. de Schmid; Building and ornamental stones of Ontario: south of the Ottawa and French rivers, by Prof. W. A. Parks; Peat bogs of Canada, and manufacture of peat fuel at the Government peat plant, Alfred, Ont., by A. Anrep; Tests of Blaugas, by Edgar Stansfield; Explosives industry in the Dominion of Canada, by Capt. Arthur Desborough; Explosives factories of Canada, and on the collection of data relating to mining operations, Explosion of "Virite" at Hull, Que., Explosion of "Blasters' Friend" at Sand Point, near Arnprior, Ont., coal mine disaster at Bellevue mine,*

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near Frank, Alta., by J. G. S. Hudson.—**Appendices:** Mineral production of Canada for 1910 (see report No. 102); Conference on proposed legislation to regulate the manufacture, importation, and testing of explosives; Bill 79, The Explosives Act, 1910-11.

Voir le rapport n° 103A pour l'édition française. See map No. 94.

Out of print.

Cat. No. M32-103

- 103A.—**Rapport sommaire de la Division des mines du ministère des Mines pour l'année civile 1910. 1912.** 239p. 16 planches, 1 figure, 1 carte. (Doc. parl. n° 26a-1911.)

**Sommaire.—Rapport général du directeur, par Eugène Haanel.—Rapports:** Laboratoires de chimie, par F. G. Wait; Division des richesses et statistiques minières, par John McLeish; Essayerie de la Puissance du Canada, par G. Middleton; Station d'essai de combustible, par B. F. Haanel; Laboratoire de métallurgie et de préparation de minerai, par C. Mackenzie.—**Rapports préliminaires des travaux sur le terrain:** Minerai de molybdène d'Ontario et Colombie-Britannique, par T. L. Walker; Industrie de l'extraction du cuivre dans Ontario et les Provinces maritimes, par Alfred W. G. Wilson; District ferrifère d'Austin Brook, N.-B., par E. Lindeman; Investigation sur les gisements de minerai de Torbrook, comté d'Annapolis, Nouvelle-Écosse, et les gisements de magnésite, canton de Grenville, comté d'Argenteuil, Qué., par Howells Fréchette; Investigation sur une prétendue découverte de minerai d'étain dans le voisinage d'Arnprior, Ont., District argentifère de Cobalt, de Gowganda et Elk Lake, de Shiningtree et Rosey Creek, de Porcupine, par L. H. Cole; Gisements de mica d'Ontario et Québec, par Hugh S. de Schmid; Pierres de construction et d'ornement d'Ontario, au sud de la rivière Ottawa et de la rivière au Français, par W. A. Parks; Tourbières du Canada et la fabrication de la tourbe combustible à la fabrique de tourbe du gouvernement à Alfred, Ont., par A. Anrep; Essais de Blaugas, par Edgar Stansfield; Industrie des explosifs en Canada, par Arthur Desborough; Fabriques d'explosifs du Canada et de la réunion de données relatives aux opérations minières, Explosion de virite à Hull, Qué., Explosion de "Blaster's Friend" à Sand Point, près d'Arnprior, Ont., Catastrophe de la mine de houille de Bellevue, près de Frank, Alta., par J. G. S. Hudson.—**Annexes:** Production minérale du Canada en 1910, par John McLeish; Conférence sur la législation projetée pour réglementer la fabrication, l'importation et l'essai des explosifs, par Eugène Haanel; Bill 79, Loi des explosifs, 1910-11.

See report No. 103 for English edition.

Édition épuisée.

N° de cat. M32-103F

- 104.—**Catalogue of publications of the Mines Branch, 1907-11,** containing tables of contents of the various technical reports, monographs, bulletins, etc., together with a list of magnetometric survey maps, working plans, etc.; including also a digest of technical memoirs and the annual summary of reports of the Superintendent of Mines issued by the Department of the Interior, 1902-1906. 1912. 135p.

Out of print.

Cat. No. M32-104

- 105.—**Austin Brook iron-bearing district, New Brunswick,** by Einar Lindeman. Ottawa, 1913. 15p. 3 pls., 5 figs., 3 maps in pocket.

Voir le rapport n° 219 pour l'édition française. See maps No. 106, 107, and 108.

15¢.

Cat. No. M32-105

- 106.—**Austin Brook iron-bearing district, Bathurst township, Gloucester county, N.B.; geological map,** by E. Lindeman. 1912. 400' : 1".

Accompanying reports No. 105 and 217, Vol. I.

25¢.

Cat. No. M32-106



**Reports and maps—Rapports.—Continued—Suite.**

- 107.—**Austin Brook iron-bearing district**, Gloucester county, N.B., magnetometric survey map, vertical intensity, by E. Lindeman. 1912. 400':1".  
Accompanying reports No. 105 and 217, Vol. I.  
25¢. Cat. No. M32-107
- 108.—**Index map showing iron-bearing area at Austin Brook**, by E. Lindeman. 1911. 400':1".  
Accompanying report No. 105.  
Out of print. Cat. No. M32-108
- 109.—Not published.
- 110.—**Western portion of Torbrook iron ore deposits**, Annapolis county, N.S., by Howells Fréchette. 1912. 20p. 4 pls., 1 map. (Bulletin No. 7.)  
See map No. 141.  
10¢. Cat. No. M32-110
- 111.—**Diamond drilling at Point Mamainse, Ontario**, by Alfred C. Lane, with introductory by A. W. G. Wilson. 1911. 59p. 5 pls., 1 fig., 1 map. (Bulletin No. 6.)  
See map No. 112.  
Out of print. Cat. No. M32-111
- 112.—**Sketch plan showing geology of Point Mamainse, Ont.**, by Professor A. C. Lane. 1912. 4,000':1".  
Accompanying report No. 111.  
Out of print. Cat. No. M32-112
- 113.—**Holland peat bog, Ontario; map**, by A. Anrep. 1912. 1600':1".  
Accompanying report No. 151.  
Out of print. Cat. No. M32-113
- 114.—**The production of cement, lime, clay products, stone, and other structural materials in Canada during the calendar year 1910**, by John McLeish. 1911. 60p. Tables.  
Advance chapter of report No. 143.  
Out of print. Cat. No. M32-114
- 115.—**The production of iron and steel in Canada during the calendar year 1910**, by John McLeish. 1911. 38p. Tables.  
Advance chapter of report No. 143.  
Out of print. Cat. No. M32-115
- 116.—**The production of coal and coke in Canada during the calendar year 1910**, by John McLeish. 1911. 31p. Tables.  
Advance chapter of report No. 143.  
Out of print. Cat. No. M32-116
- 117.—**General summary of the mineral production of Canada during the calendar year 1910**, by John McLeish. 1911. 37p. Tables.  
Part of report No. 143.  
Out of print. Cat. No. M32-117
- 118.—**Mica: its occurrence, exploitation, and uses**, by H. S. de Schmid. Second edition. 1912. 411p. 38 pls., 67 figs., 22 maps. Voir le rapport n° 264 pour l'édition française. See also report No. 701.  
See maps No. 119 to 140 inclusive.  
Out of print. Cat. No. M32-118

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- 119.—Mica mines and occurrences in townships of East and West Portland, Quebec; map, by H. S. de Schmid. 1912. 2m : 1".  
Accompanying report No. 118.  
Out of print. Cat. No. M32-119
- 120.—Mica mines and occurrences in township of Derry, Quebec; map, by H. S. de Schmid. 1912. 2m : 1".  
Accompanying report No. 118.  
Out of print. Cat. No. M32-120
- 121.—Mica mines and occurrences in township of Villeneuve, Quebec; map, by H. S. de Schmid. 1912. 2m : 1".  
Accompanying report No. 118.  
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- 122.—Mica mines and occurrences in townships of Bigelow and Wells, Quebec; map, by H. S. de Schmid. 1912. 2m : 1".  
Accompanying report No. 118.  
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- 123.—Mica mines and occurrences in township of Templeton, Quebec; map, by H. S. de Schmid. 1912. 2m : 1".  
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- 124.—Mica mines and occurrences in township of Wakefield, Quebec; map, by H. S. de Schmid. 1912. 2m : 1".  
Accompanying report No. 118.  
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- 125.—Mica mines and occurrences in township of Hull, Quebec; map, by H. S. de Schmid. 1912. 2m : 1".  
Accompanying report No. 118.  
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- 126.—Mica mines and occurrences in townships of Aylwin and Hincks, Quebec; map, by H. S. de Schmid. 1912. 2m : 1".  
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- 127.—Mica mines and occurrences in township of Blake, Quebec; map, by H. S. de Schmid. 1912. 2m : 1".  
Accompanying report No. 118.  
Out of print. Cat. No. M32-127
- 128.—Mica mines and occurrences in townships of Wright and Northfield, Quebec; map, by H. S. de Schmid. 1912. 2m : 1".  
Accompanying report No. 118.  
Out of print. Cat. No. M32-128
- 129.—Mica mines and occurrences in township of Alleyn, Quebec; map, by H. S. de Schmid. 1912. 2m : 1".  
Accompanying report No. 118.  
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- 130.—Mica mines and occurrences in township of Cawood, Quebec; map, by H. S. de Schmid. 1912. 2m : 1".  
Accompanying report No. 118.  
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- 131.—Mica mines and occurrences in township of Loughborough, Ontario; map, by H. S. de Schmid. 1912. 2m : 1".  
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- 132.—Mica mines and occurrences in township of Bedford, Ontario; map, by H. S. de Schmid. 1912. 2m : 1".  
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- 133.—Mica mines and occurrences in townships of North and South Burgess, Ontario; map, by H. S. de Schmid. 1912. 2m : 1".  
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- 135.—Mica mines and occurrences in township of North Crosby, Ontario; map, by H. S. de Schmid. 1912. 2m : 1".  
Accompanying report No. 118.  
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- 136.—Mica mines and occurrences in township of South Crosby, Ontario; map, by H. S. de Schmid. 1912. 2m : 1".  
Accompanying report No. 118.  
Out of print. Cat. No. M32-136
- 137.—Mica mines and occurrences in township of Bastard, Ontario; map, by H. S. de Schmid. 1912. 2m : 1".  
Accompanying report No. 118.  
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- 138.—Map showing location of principal mines and occurrences in the Quebec mica area, by Hugh S. de Schmid. 1911. 3.95m : 1".  
Accompanying report No. 118.  
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- 139.—Map showing location of principal mines and occurrences in the Ontario mica area, by Hugh S. de Schmid. 1911. 3.95m : 1".  
Accompanying report No. 118.  
Out of print. Cat. No. M32-139
- 140.—Map showing distribution of the principal mica occurrences in the Dominion of Canada, by Hugh S. de Schmid. 1911. 100m : 1".  
Accompanying report No. 118.  
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- 141.—Torbrook iron-bearing district (southwest part), Annapolis county, N.S.; topographic map, by Howells Fréchette. 1912. 400' : 1".  
Accompanying report No. 110.  
25¢. Cat. No. M32-141

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- 142.—Summary report of the Mines Branch of the Department of Mines for the calendar year 1911. 1912. 208p. 16 pls., 6 figs., 1 map. (Sess. paper No. 26a-1912.)

Contents.—Director's general report, by Eugene Haanel.—Reports: Chemical laboratories, by F. G. Wait; Division of Mineral Resources and Statistics, by John McLeish; Assay Office, by G. Middleton; Fuels and Fuel Testing Division, by B. F. Haanel; Investigation of peat bogs, 1911, by A. Anrep; Chemical laboratory of Fuel Testing Station, by E. Stansfield; Ore Dressing and Metallurgical Laboratory, by G. C. Mackenzie.—Preliminary reports on field work: Building and ornamental stones of Maritime Provinces, by W. A. Parks; Sudbury nickel field, by A. P. Coleman; Copper and pyrites, by A. W. G. Wilson; Iron ore deposits along Central Ontario railway, by E. Lindeman; Calabogie iron-bearing district, by E. Lindeman; Magnetometric survey of a nickeliferous pyrrhotite deposit in Sudbury district, by E. Lindeman; Canadian market for various mineral products in a crude or partially prepared state, by Howells Fréchette; Gypsum and salt industries of central and western Canada, by L. H. Cole; Phosphate and feldspar deposits of Ontario and Quebec, by Hugh S. de Schmid; Determination of moisture in fuels, by E. Stansfield; Tests on pyrene, by E. Stansfield; An electrically heated tube furnace suitable for making ultimate organic analyses, by E. Stansfield; Explosion of explosives at Sand Point, Ont., Belœil and Rigaud, Que., by J. G. S. Hudson.—Appendices: Preliminary report on mineral production, 1911 (See report No. 150); On Explosives. Voir le rapport n° 142A pour l'édition française. See map No. 166.

Out of print.

Cat. No. M32-142

- 142A.—Rapport sommaire de la Division des mines du ministère des Mines pour l'année 1911. 1913. 200p. 16 planches, 6 figures, 1 carte. (Doc. parl. n° 26a-1912.)

Sommaire.—Rapport général du directeur, par Eugene Haanel.—Rapports: Laboratoire de chimie, par F. G. Wait; Section des statistiques et des ressources minérales, par John McLeish; Laboratoire fédéral de Vancouver, C.-B., par G. Middleton; Section des combustibles et de l'essai des combustibles, par B. F. Haanel; Recherche sur les tourbières, par A. Anrep; Laboratoire de chimie, par Edgar Stansfield; Laboratoire métallurgique, par Geo. C. Mackenzie.—Rapports préliminaires des travaux sur le terrain: Pierre à bâtir des provinces maritimes, par W. A. Parks; L'industrie du nickel avec indications spéciales sur la région de Sudbury, par A. P. Coleman; Cuivre et pyrites, par A. W. G. Wilson; Les dépôts de fer le long du "Central Ontario Railway"; Gisements de fer du district de Calabogie; Relevé magnétométrique de la pyrrhotite nickelifère du district de Sudbury, par E. Lindeman; Étude des débouchés canadiens pour les produits minéraux bruts et en partie manufacturés, par Howells Fréchette; Les industries du gypse et du sel dans le Canada central et méridional, par L. H. S. Code; Les dépôts de phosphate et de feldspath de l'Ontario et de la province de Québec, par Hugh S. de Schmid; Détermination de l'humidité des combustibles, par Edgar Stansfield; Description d'un four électrique pour faire les analyses organiques élémentaires, par Edgar Stansfield; Rapport sur l'explosion d'un explosif à Sand Point, Ont., à Belœil, Qué., à Rigaud, Qué., par J. G. S. Hudson.—Appendices: Rapport préliminaire sur la production minérale du Canada, 1911, par John McLeish; Explosifs.

See report No. 142 for English edition.

Édition épuisée.

N° de cat. M32-142F

- 143.—Annual report on the mineral production of Canada during the calendar year 1910, by John McLeish. 1912. 328p. Tables. See separates No. 114, 115, 116, and 117.

Out of print.

Cat. No. M32-143

- 144.—Not published.



**Reports and maps—Rapports.—Continued—Suite.**

- 145.—**Magnetic iron sands of Natashkwan**, Saguenay county, Quebec, by Geo. C. Mackenzie. 1912. 49p. 22 pls., 9 figs., 3 maps.  
Voir le rapport n° 149 pour l'édition française. See maps No. 146, 147, and 148.  
Out of print. Cat. No. M32-145
- 146.—**Distribution of iron ore sands deposits on the north shore of the river and gulf of St. Lawrence, Canada; map**, by Geo. C. Mackenzie. 1912. 100m:1".  
Accompanying report No. 145.  
Out of print. Cat. No. M32-146
- 147.—**Magnetic iron sand deposits in relation to Natashkwan Harbour and Great Natashkwan river, Que.; index map**, by Geo. C. Mackenzie. 1912.  $\frac{1}{2}$ m:1".  
Accompanying report No. 145.  
Out of print. Cat. No. M32-147
- 148.—**Natashkwan magnetic iron sand deposits**, Saguenay county, Que.; **map**, by Geo. C. Mackenzie. 1912. 1,000':1".  
Accompanying report No. 145.  
Out of print. Cat. No. M32-148
- 149.—**Sables ferrugineux magnétiques de Natashkwan**, comté de Saguenay, province de Québec, par Geo. C. Mackenzie. 1913. 49p. 22 gravures, 9 figures, tableaux, 3 cartes.  
See report No. 145 for English edition.  
Édition épuisée. N° de cat. M32-149F
- 150.—**Preliminary report on the mineral production of Canada during the calendar year 1911**, by John McLeish. 1912. 24p. Tables.  
Part of report No. 142.  
Out of print. Cat. No. M32-150
- 151.—**Investigation of the peat bogs and peat industry of Canada, 1910-11**, by A. Anrep. 1912. 61p. 19 pls., 1 fig., 12 maps. (Bulletin No. 8.)  
Voir le n° 180 pour l'édition française. See maps No. 113, 152, 153, 157 to 165 inclusive.  
Out of print. Cat. No. M32-151
- 152.—**Location of peat bogs investigated in Ontario; index map**, by A. Anrep. 1912. 35m:1".  
Accompanying report No. 151. See map No. 447.  
Out of print. Cat. No. M32-152
- 153.—**Location of peat bogs**, as investigated in Manitoba; **index map**, by A. Anrep. 1912. 12m:1".  
Accompanying report No. 151.  
Out of print. Cat. No. M32-153
- 154.—**Report on the utilization of peat fuel for the production of power**, being a record of experiments conducted at the Fuel Testing Station, Ottawa, 1910-1911, by B. F. Haanel. 1912. 145p. 10 pls., 17 figs., 17 charts, tables.  
Voir le n° 155 pour l'édition française.  
Out of print. Cat. No. M32-154

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- 155.—**Rapport sur l'utilisation de la tourbe pour la production de la force motrice; résultats des expériences faites à la Station d'essai des combustibles à Ottawa, 1910-1911, par B. F. Haanel.** 1913. 141p. 10 planches, 17 figures, 17 diagrammes, tableaux.  
See report No. 154 for English edition.  
Édition épuisée. N° de cat. M32-155F
- 156.—**Rapport sur les minerais de tungstène du Canada, par T. L. Walker.** 1913. 56p. 10 planches, 6 figures, tableaux.  
See report No. 25 for English edition.  
Édition épuisée. N° de cat. M32-156F
- 157.—**Lac-du-Bonnet peat bog, Manitoba; map, by A. Anrep.** 1912. 800':1".  
Accompanying report No. 151.  
Out of print. Cat. No. M32-157
- 158.—**Transmission peat bog, Manitoba; map, by A. Anrep.** 1912. 1500':1".  
Accompanying report No. 151.  
Out of print. Cat. No. M32-158
- 159.—**Corduroy peat bog, Manitoba; map, by A. Anrep.** 1912. 780':1".  
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Out of print. Cat. No. M32-159
- 160.—**Boggy Creek peat bog, Manitoba; map, by A. Anrep.** 1912. 1300':1".  
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- 161.—**Rice Lake peat bog, Manitoba; map, by A. Anrep.** 1912. 820':1".  
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Out of print. Cat. No. M32-161
- 162.—**Mud Lake peat bog, Manitoba; map, by A. Anrep.** 1912. 750':1".  
Accompanying report No. 151.  
Out of print. Cat. No. M32-162
- 163.—**Litter peat bog, Manitoba; map, by A. Anrep.** 1912. 800':1".  
Accompanying report No. 151.  
Out of print. Cat. No. M32-163
- 164.—**Julius peat litter bog, Manitoba; map, by A. Anrep.** 1912. 2350':1".  
Accompanying report No. 151.  
Out of print. Cat. No. M32-164
- 165.—**Fort Francis peat bog, Ontario; map, by A. Anrep.** 1912. 1900':1".  
Accompanying report No. 151.  
Out of print. Cat. No. M32-165
- 166.—**McKim township, Sudbury district, Ont.; magnetometric map of No. 3 mine, lot 7, concessions V and VI, by E. Lindeman.** 1912. 200':1".  
Accompanying report No. 142.  
Out of print. Cat. No. M32-166



**Reports and maps—Rapports.—Continued—Suite.**

- 167.—**Pyrites in Canada: its occurrence, exploitation, dressing, and uses**, by Alfred W. G. Wilson. 1912. 202p. 27 pls., 29 figs., tables, 1 map.  
Voir le rapport n° 169 pour l'édition française. See map No. 168.  
Out of print. Cat. No. M32-167
- 168.—**Pyrites mines and prospects in eastern Canada** and their relation to the United States market; **general map**, by A. W. G. Wilson. 1912. 125m : 1".  
Accompanying report No. 167.  
Out of print. Cat. No. M32-168
- 169.—**Pyrites au Canada: gisements, exploitation, préparation, usages**, par Alfred W. G. Wilson. 1914. 204p. 27 planches, 29 figures, tableaux, 1 carte.  
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- 170.—**The nickel industry**; with special reference to the Sudbury region, Ontario, by A. P. Coleman. 1913. 206p. 63 pls., 14 figs., 8 maps.  
Voir le rapport n° 179 pour l'édition française. See maps No. 171, 172, 173, 174, 175, 176, 177, and 178.  
Out of print. Cat. No. M32-170
- 171.—**Sudbury nickel region, Ont.; geological map**, by A. P. Coleman. 1912. 1m : 1".  
Accompanying report No. 170.  
Out of print. Cat. No. M32-171
- 172.—**Victoria mine; geological map**, by A. P. Coleman. 1912. 300' : 1".  
Accompanying report No. 170.  
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- 173.—**Crean Hill mine; geological map**, by A. P. Coleman. 1912. 225' : 1".  
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- 174.—**Creighton mine; geological map**, by A. P. Coleman. 1912. 300' : 1".  
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- 176.—**Copper Cliff offset; geological map**, by A. P. Coleman. 1913. 2800' : 1".  
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- 177.—**No. 3 Mine (Frood mine), Sudbury district; geological map**, by A. P. Coleman. 1912. 550' : 1".  
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- 178.—**Vicinity of Stobie and No. 3 mines; geological map**, by A. P. Coleman. 1912. 1400':1".  
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Out of print. Cat. No. M32-178
- 179.—**L'industrie du nickel particulièrement dans la région de Sudbury, Ontario**, par A. P. Coleman. 1915. 212p. 64 planches, 14 figures, 8 cartes.  
See report No. 170 for English edition.  
Édition épuisée. N° de cat. M32-179F
- 180.—**Recherches sur les tourbières et l'industrie de la tourbe au Canada, 1910-11**, par A. Anrep. 1914. 50p. 19 planches, 1 figure, 12 cartes. (Bulletin n° 8.)  
See report No. 151 for English edition.  
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- 181.—**The production of cement, lime, clay products, stone, and other structural materials in Canada during the calendar year 1911**, by John McLeish. 1912. 55p. Tables.  
Advance chapter of report No. 201.  
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- 182.—**The production of iron and steel in Canada during the calendar year 1911**, by John McLeish. 1912. 32p. Tables.  
Advance chapter of report No. 201.  
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- 183.—**General summary of the mineral production of Canada during the calendar year 1911**, by John McLeish. 1912. 38p. Tables.  
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- 184.—**Magnetite occurrences along the Central Ontario Railway**, by E. Lindeman. 1913. 23p. 9 pls., 19 maps.  
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- 185.—**Blairton iron mine, Belmont township, Peterborough county, Ontario; magnetometric survey map**, vertical intensity, by E. Lindeman. 1911. 200':1".  
Accompanying reports No. 184 and 217, Vol. I.  
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- 185A.—**Blairton iron mine, Belmont township, Peterborough county, Ontario; geological map**, by E. Lindeman. 1911. 200':1".  
Accompanying reports No. 184 and 217, Vol. I.  
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- 186.—**Belmont iron mine, Belmont township, Peterborough county, Ontario; magnetometric survey map**, by E. Lindeman. 1911. 200':1".  
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- 186A.—**Belmont iron mine**, Belmont township, Peterborough county, Ontario; **geological map**, by E. Lindeman. 1911. 200':1". Accompanying reports No. 184 and 217, Vol. I.  
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- 187.—**St. Charles mine**, Tudor township, Hastings county, Ontario; **magnetometric survey map**, vertical intensity, by E. Lindeman. 1911. 200':1". Accompanying reports No. 184 and 217, Vol. II.  
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- 187A.—**St. Charles mine**, Tudor township, Hastings county, Ontario; **geological map**, by E. Lindeman. 1911. 200':1". Accompanying reports No. 184 and 217, Vol. II.  
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- 188.—**Baker mine**, Tudor township, Hastings county, Ontario; **magnetometric survey map**, vertical intensity, by E. Lindeman. 1911. 200':1". Accompanying reports No. 184 and 217, Vol. II.  
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- 191.—**Bessemer iron ore deposits**, Mayo township, Hastings county, Ontario; **magnetometric survey map**, vertical intensity, by E. Lindeman. 1911. 200':1". Accompanying reports No. 184 and 217, Vol. I.  
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- 191A.—**Bessemer iron ore deposits**, Mayo township, Hastings county, Ontario; **geological map**, by E. Lindeman. 1911. 200':1". Accompanying reports No. 184 and 217, Vol. I.  
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- 192.—**Rankin, Childs, and Stevens mines**, Mayo township, Hastings county, Ontario; **magnetometric survey map**, vertical intensity, by E. Lindeman. 1911. 200':1". Accompanying reports No. 184 and 217, Vol. I.  
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- 193.—**Kennedy property**, Carlow township, Hastings county, Ontario; **magnetometric survey map**, vertical intensity, by E. Lindeman. 1911. 200':1".  
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- 193A.—**Kennedy property**, Carlow township, Hastings county, Ontario; **geological map**, by E. Lindeman. 1911. 200':1".  
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- 196.—**Enquête sur les tourbières et l'industrie de la tourbe au Canada**, durant la saison 1909-10, par A. Anrep. 1913. 48p. 17 planches, 6 figures, 6 cartes. (Bulletin n° 4.)  
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Advance chapter of report No. 201.  
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- 201.—**Annual report on the mineral production of Canada during the calendar year 1911**, by John McLeish. 1913. 316p. Tables.  
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Out of print. Cat. No. M32-201



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- 202.—**Graphite: propriétés, gisements, traitements et usages**, par Fritz Cirkel. 1912. 263p. 20 planches, 52 figures, tableaux, 10 cartes.  
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- 203.—**Report on the building and ornamental stones of Canada; Vol. II: Maritime Provinces**, by Wm. A. Parks. 1914. 264p. 45 pls., 9 figs.  
Voir le rapport n° 280 pour l'édition française. See also reports No. 100, 279, 388, and 452.  
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- 204.—**Magnetite occurrences along the Central Ontario Railway; index map**, by E. Lindeman. 1911. 4m:1".  
Accompanying report No. 184.  
Out of print. Cat. No. M32-204
- 205.—**Moose Mountain iron-bearing district**, deposits No. 1 to 7 incl., Sudbury district, Ontario; **magnetometric map**, by E. Lindeman. 1912. 200':1".  
Accompanying report No. 217, Vol. I, and report No. 303.  
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- 205A.—**Moose Mountain iron-bearing district**, deposits No. 1 to 7 incl., Sudbury district, Ontario; **geological map**, by E. Lindeman. 1912. 800':1".  
Accompanying report No. 303.  
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- 206.—**Moose Mountain iron-bearing district**, Northern portion deposit No. 2, Sudbury district, Ontario; **magnetometric survey map**, by E. Lindeman. 1912. 200':1".  
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- 207.—**Moose Mountain iron-bearing district**, deposits No. 8, 9, and 9a, Sudbury district, Ontario; **magnetometric survey map**, by E. Lindeman. 1912. 200':1".  
Accompanying report No. 217, Vol. I, and report No. 303.  
Out of print. Cat. No. M32-207
- 208.—**Moose Mountain iron-bearing district**, deposit No. 10, Sudbury district, Ontario; **magnetometric survey map**, by E. Lindeman. 1912. 200':1".  
Accompanying report No. 217, Vol. I, and report No. 303.  
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- 208A.—**Moose Mountain iron-bearing district**, Eastern portion deposit No. 11, Sudbury district, Ontario; **magnetometric survey map**, by E. Lindeman. 1912. 200':1".  
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25¢. Cat. No. M32-208A
- 208B.—**Moose Mountain iron-bearing district**, Western portion deposit No. 11, Sudbury district, Ontario; **magnetometric survey map**, by E. Lindeman. 1912. 200':1".  
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- 208C.—**Moose Mountain iron-bearing district**, Sudbury district, Ontario; **general geological map**, by E. Lindeman. 1912. 800' : 1".  
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- 209.—**The copper smelting industries of Canada**, by Alfred W. G. Wilson. 1913. 184p. 43 pls., 39 figs., 4 maps.  
Voir le rapport n° 214 pour l'édition française. See maps No. 210, 211, 212, and 213.  
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- 210.—**Location of copper smelters in Canada; map**, by Alfred W. G. Wilson. 1913. 200m : 1".  
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- 211.—**Relative position of copper smelters and mines in southern British Columbia; map**, by Alfred W. G. Wilson. 1913. 35m : 1".  
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- 215.—**Province of Alberta: properties from which samples of coal were taken for gas producer tests**, Fuel Testing Division, Ottawa; **index map**, by J. G. S. Hudson. 1913. 35m : 1".  
Accompanying report No. 224.  
25¢. Cat. No. M32-215
- 216.—**Preliminary report on the mineral production of Canada during the calendar year 1912**, by John McLeish. 1913. 21p. Tables.  
Part of report No. 224.  
Out of print. Cat. No. M32-216
- 217.—**Iron ore occurrences in Canada**, compiled by E. Lindeman and L. L. Bolton, with introductory by A. H. A. Robinson. 1917. 2 volumes.  
Vol. I.—**Description of principal iron ore mines**. 71p. 23 pls., 1 map in pocket and 22 maps enclosed in special case.  
See maps No. 106, 107, 185, 185A, 186, 186A, 190, 190A, 191, 191A, 192, 192A, 205, 206, 207, 208, 208A, 208B, 208C, 340, 340A, 443, 445.  
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Cat. No. M32-217/2

218.—Not published.

219.—Les gisements de fer d'Austin Brook au Nouveau-Brunswick, par Einar Lindeman. 1914. 14p. 3 planches, 5 figures, 2 cartes.

See report No. 105 for English edition.

Édition épuisée.

N° de cat. M32-219F

220.—Mining districts, Yukon; index map, by T. A. MacLean. 1914. 35m:1".

Accompanying reports No. 222 and 224.

Out of print.

Cat. No. M32-220

221.—Dawson mining district, Yukon; index map, by T. A. MacLean. 1914. 2m:1".

Accompanying reports No. 222 and 224.

Out of print.

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222.—Lode mining in Yukon: an investigation of quartz deposits in the Klondike division, by T. A. MacLean. 1914. 215p. 40 pls., 35 figs., tables, 6 maps.

Voir le rapport n° 223 pour l'édition française. See maps No. 220, 221, 234 to 237.

Out of print.

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223.—L'exploitation filonienne au Yukon; une investigation des gisements de quartz dans la division Klondike, par T. A. MacLean. 1915. 197p. 40 planches, 35 figures, tableaux, 6 cartes.

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Édition épuisée.

N° de cat. M32-223F

224.—Summary report of the Mines Branch of the Department of Mines for the calendar year 1912. 1913. 174p. 16 pls., 1 fig., tables, 3 maps. (Sess. Paper No. 26a-1913.)

Contents.—Director's general report, by Eugene Haanel.—Reports: Chemical Laboratory, by F. G. Wait; Division of Mineral Resources and Statistics, by John McLeish; Assay Office, by G. Middleton; Fuel and Fuel Testing Division: (1) Test of lignite coal from Consumer's Coal Co., Moosejaw, Sask., by B. F. Haanel; (2) Sampling of lignitic and semi-bituminous coals of Alberta for gas producer tests, by J. G. S. Hudson; (3) Chemical laboratory of Fuel Testing Station, by E. Stansfield; (4) Investigation of peat bogs, by A. Anrep; (5) Petroleum and natural gas resources of Canada, by F. G. Clapp and L. G. Huntley; Ore Dressing and Metallurgical Division: (1) Investigation of magnetic iron sands at Natashkwan, Que.; (2) Equipment of new Ore Dressing Laboratories; and, (3) Report on Parker-Lanier process of extracting gold from free-milling and refractory ores, by G. C. Mackenzie.—Preliminary reports on field work: Building and ornamental stones of Quebec, by W. A. Parks; Pyrites and copper, by A. W. G. Wilson; Mineral deposits in vicinity of St. Mary Bay, Nova Scotia, by A. W. G. Wilson; Moose Mountain iron-bearing district, Ont., by E. Lindeman; Canadian market for various mineral products in a crude or partially prepared state, by Howells Fréchette; Continued examination of the phosphate and feldspar deposits of Ontario and Quebec, by H. S. de Schmid; Gypsum and salt industries

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Voir le rapport n° 224F pour l'édition française. See maps No. 215, 220 and 221.

Out of print.

Cat. No. M32-224

- 224F.—Rapport sommaire de la Division des mines du ministère des Mines pour l'année civile 1912. 1914. 179p. 16 planches, 1 figure, tableaux, 3 cartes. (Doc. parl. n° 26a-1913.)

Sommaire.—Rapport du directeur général, par Eugene Haanel.—Rapports: Laboratoire de chimie, par F. G. Wait; Division des Ressources minérales et des Statistiques, par J. McLeish; Essayerie du Canada à Vancouver, par G. Middleton; Division d'essai du combustible: (1) Essai de lignite de la "Consumers Coal Company" Moosejaw, Sask., par B. F. Haanel; (2) Échantillon de houilles ligniteuses et semi-bitumineuses de l'Alberta, pour des épreuves de gazogènes, par J. G. S. Hudson; (3) Laboratoire chimique de la station d'essai du combustible par E. Stansfield; (4) Recherches sur les tourbières, par A. Anrep; (5) Le pétrole et les ressources du gaz naturel du Canada, par F. G. Clapp et L. G. Huntley; Préparation des minerais et division métallurgique: (1) Sables de fer magnétique à Natashkwan, Québec; (2) Les nouveaux laboratoires de métallurgie et de préparation des minerais; et, (3) Rapport sur le procédé de MM. Parker et Lanius pour l'extraction de l'or des minerais faciles à traiter et des minerais réfractaires, par G. C. Mackenzie.—Rapports préliminaires des travaux sur le terrain: Pierres de construction et d'ornement de la province de Québec, par W. A. Parks; Pyrites et cuivre; et, Gisements de minerais dans le voisinage de la Baie Ste-Marie, N.-É., par A. W. G. Wilson; District ferrifère de la montagne l'Original (Moose Mountain), Ont., par E. Lindeman; Recherches sur le marché existant au Canada pour divers produits minéraux à l'état brut, ou partiellement préparés, par Howells Fréchette; Examen des gisements de phosphate et de feldspath dans l'Ontario et le Québec, par H. S. de Schmid; Industries du gypse et du sel au Canada, par L. H. Cole; Cobalt métallique et ses alliages; et, Progrès récents de la production électrothermique du fer et de l'acier, 1911-12, par H. T. Kalmus; Dépôts de quartz dans la division du Klondike, par T. A. MacLean.—Appendices: Rapport préliminaire au sujet de la production minérale au Canada, en 1912, par John McLeish; Législation administrative des terrains miniers au Canada.

See report No. 224 for English edition.

Édition épuisée.

N° de cat. M32-224F

- 225.—Not published.

- 226.—Rapport sur les dépôts de fer chromé des Cantons de l'Est de la province de Québec, par Fritz Cirkel. 1912. 145p. 9 planches, 15 figures, 1 carte.

See report No. 29 for English edition.

Édition épuisée.

N° de cat. M32-226F

- 227.—Sections of the Sydney coal fields, Cape Breton, by Joseph G. S. Hudson. 1913. 6p. 15 pls., tables, 1 map.

See map No. 228.

Out of print.

Cat. No. M32-227

- 228.—Sydney coal fields, Cape Breton, N.S.; index map, by J. G. S. Hudson. 1913. 1½m:1".

Accompanying report No. 227.

Out of print.

Cat. No. M32-228



**Reports and maps—Rapports.—Continued—Suite.**

- 229.—**Summary report on the petroleum and natural gas resources of Canada**, by F. G. Clapp and L. G. Huntley. 1913. 14p.  
Reprint from report No. 224.  
Out of print. Cat. No. M32-229
- 230.—**Economic minerals and mining industries of Canada**. 1913. 77p. 19 pls., 1 map.  
Voir le rapport n° 231 pour l'édition française. See also reports No. 611 and 738, and, map No. 232.  
25¢. Cat. No. M32-230
- 231.—**Minéraux industriels et industries minières du Canada**. 1913. 85p. 19 planches, 1 carte.  
See report No. 230 for English edition.  
Édition épuisée. N° de cat. M32-231F
- 232.—**Mineral map of Canada**. 1913. 100m : 1".  
Accompanying reports No. 230 and 322.  
Out of print. Cat. No. M32-232
- 233.—**Rapport sur les gisements de gypse des Provinces Maritimes**, par Williams F. Jennison. 1913. 181p. 36 planches, 17 figures, 3 cartes.  
See report No. 84 for English edition.  
Édition épuisée. N° de cat. M32-233F
- 234.—**Portion of Whitehorse copper belt; index map**, by T. A. MacLean. 1914. 8000' : 1".  
Accompanying report No. 222.  
Out of print. Cat. No. M32-234
- 235.—**Portion of Windy Arm mining district; index map**, by T. A. MacLean. 1914. 2m : 1".  
Accompanying report No. 222.  
Out of print. Cat. No. M32-235
- 236.—**Vicinity of Wheaton river; map**, by T. A. MacLean. 1914. 2m : 1".  
Accompanying report No. 222.  
Out of print. Cat. No. M32-236
- 237.—**Dublin gulch, mining property; geological sketch map**, by T. A. McLean. 1914. 2400' : 1".  
Accompanying report No. 222.  
Out of print. Cat. No. M32-237
- 238.—**General summary of the mineral production of Canada during the calendar year 1912**, by John McLeish. 1913. 46p. Tables.  
Part of report No. 262.  
15¢. Cat. No. M32-238
- 239.—**Index map of Canada showing gypsum occurrences**, by L. H. Cole. 1913. 600m : 1".  
Accompanying report No. 245.  
Out of print. Cat. No. M32-239
- 240.—**Map showing lower carboniferous formation in which gypsum occurs in the Maritime Provinces**, by L. H. Cole. 1913. 100m : 1".  
Accompanying report No. 245.  
Out of print. Cat. No. M32-240

## MINES BRANCH PUBLICATIONS

### Reports and maps—Rapports.—Continued—Suite.

- 241.—**Map showing relation of gypsum deposits in Northern Ontario to railway lines**, by L. H. Cole. 1913. 100m : 1".

Accompanying report No. 245.

Out of print.

Cat. No. M32-241

- 242.—**Grand River gypsum deposits, Ontario; index map**, by L. H. Cole. 1913. 4m : 1".

Accompanying report No. 245.

Out of print.

Cat. No. M32-242

- 243.—**Plan of Manitoba Gypsum Company's properties**, by L. H. Cole. 1913. 6700' : 1".

Accompanying report No. 245.

Out of print.

Cat. No. M32-243

- 244.—**Map showing relation of gypsum deposits in British Columbia to railway lines and market**, by L. H. Cole. 1914. 35m : 1".

Accompanying report No. 245.

Out of print.

Cat. No. M32-244

- 245.—**Gypsum in Canada: its occurrence, exploitation, and technology**, by L. H. Cole. 1913. 256p. 30 pls., 27 figs., tables, 6 maps.

*Appendices.—Gypsum operators in Canada.—Bibliography.—Gypsum deposits of the Maritime Provinces*, by W. F. Jennison. (Reprinted from report No. 84.)

Voir le rapport n° 246 pour l'édition française. See maps No. 239, 240, 241, 242, 243, and 244.

Out of print.

Cat. No. M32-245

- 246.—**Le gypse du Canada: ses gisements, son exploitation, et sa technologie**, par L. H. Cole. 1916. 252p. 30 planches, 27 figures, tableaux, 6 cartes.

*Appendices.—Liste des exploitants de gypse.—Bibliographie.—Gisements de gypse des Provinces Maritimes*, par W. F. Jennison. (Réimprimé du rapport n° 233.)

See report No. 245 for English edition.

Édition épuisée.

N° de cat. M32-246F

- 247.—**The production of iron and steel in Canada during the calendar year 1912**, by John McLeish. 1913. 39p. Tables.

Voir le rapport n° 287 pour l'édition française. Advance chapter of report No. 262.

Out of print.

Cat. No. M32-247

- 248.—Not published.

- 249.—**Caldwell and Campbell mines, Calabogie district, Renfrew county, Ontario; magnetometric survey map**, by E. Lindeman. 1911. 200' : 1".

Accompanying reports No. 217, Vol. II and 254.

25¢.

Cat. No. M32-249

- 250.—**Black Bay or Williams mine, Calabogie district, Renfrew county, Ontario; magnetometric survey map**, by E. Lindeman. 1911. 200' : 1".

Accompanying reports No. 217, Vol. II and 254.

Out of print.

Cat. No. M32-250



PUBLICATIONS DE LA DIRECTION DES MINES

Reports and maps—Rapports.—Continued—Suite.

- 251.—**Bluff Point iron mine**, Calabogie district, Renfrew county, Ontario; **magnetometric survey map**, by E. Lindeman. 1911. 200' : 1".

Accompanying reports No. 217, Vol. II and 254.

25¢.

Cat. No. M32-251

- 252.—**Culhane mine**, Calabogie district, Renfrew county, Ontario; **magnetometric survey map**, by E. Lindeman. 1911. 200' : 1".

Accompanying reports No. 254, and 217, Vol. II.

Out of print.

Cat. No. M32-252

- 253.—**Martel or Wilson iron mine**, Calabogie district, Renfrew county, Ontario; **magnetometric survey map**, by E. Lindeman. 1911. 200' : 1".

Accompanying reports No. 254, and 217, Vol. II.

Out of print.

Cat. No. M32-253

- 254.—**Magnetite occurrences near Calabogie**, Renfrew county, Ontario, by E. Lindeman. 1914. 16p. 1 fig., 5 maps.

Voir le rapport n° 255 pour l'édition française. See maps No. 249, 250, 251, 252, and 253.

Out of print.

Cat. No. M32-254

- 255.—**Les gisements de magnétite près de Calabogie**, comté de Renfrew, Ontario, par E. Lindeman. 1917. 20p. 1 figure, 5 cartes.

See report No. 254 for English edition.

15¢.

N° de cat. M32-255F

- 256.—**The production of copper, gold, lead, nickel, silver, zinc, and other metals in Canada during the calendar year 1912**, by C. T. Cartwright. 1913. 86p. Tables.

Advance chapter of report No. 262. Voir le rapport n° 290 pour l'édition française.

Out of print.

Cat. No. M32-256

- 257.—**The production of cement, lime, clay products, stone, and other structural materials in Canada during the calendar year 1912**, by John McLeish. 1913. 64p. Tables.

Advance chapter of report No. 262. Voir le rapport n° 289 pour l'édition française.

15¢.

Cat. No. M32-257

- 258.—**The production of coal and coke in Canada during the calendar year 1912**, by John McLeish. 1913. 42p. Tables.

Advance chapter of report No. 262. Voir le rapport n° 288 pour l'édition française.

Out of print.

Cat. No. M32-258

- 259.—**Preparation of metallic cobalt by reduction of the oxide**, by H. T. Kalmus, and others. 1913. 36p. 8 pls., 4 figs., tables. (Researches on cobalt and cobalt alloys conducted at Queen's University, Kingston, Ontario, for the Mines Branch of the Department of Mines, Part I.)

Voir le rapport n° 260 pour l'édition française. See also reports No. 309, 334, 411, and 413.

15¢.

Cat. No. M32-259

# MINES BRANCH PUBLICATIONS

## Reports and maps—Rapports.—Continued—Suite.

- 260.—**Préparation du cobalt métallique par la réduction de l'oxyde**, par H. T. Kalmus et autres. 1916. 36p. 8 planches, 4 figures. (Recherches sur le cobalt et ses alliages, faites à l'Université Queens, de Kingston, Ontario, pour la Division des mines du Ministère des mines, partie 1.)

See report No. 259 for English edition. Voir aussi les rapports n° 310, 335, 412, 414.

Édition épuisée.

N° de cat. M32-260F

- 261.—**Northeast Arm iron range**, Lake Timagami, Nipissing district, Ontario; **magnetometric survey map**, by E. Nystrom. 1903. 200' : 1".

Accompanying report No. 217, Vol. II.

25¢.

Cat. No. M32-261

- 262.—**Annual report on the mineral production of Canada during the calendar year 1912**, by John McLeish. 1914. 339p. Tables.

See separates No. 238, 247, 256, 257, 258 and 287.

50¢.

Cat. No. M32-262

- 263.—**Progrès récents dans la construction des fours électriques pour la production de la fonte, de l'acier, et du zinc**, par Eugene Haanel. 1914. 86p. 1 planche, 17 figures, tableaux. (Bulletin n° 3.)

See report No. 68 for English edition.

Édition épuisée.

N° de cat. M32-263F

- 264.—**Mica: gisements, exploitation et emplois**, par Hugh S. de Schmid. Deuxième édition. 1914. 430p. 38 planches, 67 figures, 22 cartes.

See report No. 118 for English edition.

Édition épuisée.

N° de cat. M32-264F

- 265.—**Rapport annuel sur la production minérale du Canada durant l'année civile 1911**, par J. McLeish. 1914. 316p. Tableaux.

See report No. 201 for English edition.

Édition épuisée.

N° de cat. M32-265F

- 266.—**Investigation of the peat bogs and peat industry of Canada, 1911-12**, by A. Anrep. 1914. 47p. 29 pls., 6 figs., tables, 11 maps. (Bulletin No. 9.)

Voir le rapport n° 267 pour l'édition française. See maps No. 268 to 278 inclusive.

25¢.

Cat. No. M32-266

- 267.—**Recherches sur les tourbières et l'industrie de la tourbe au Canada, 1911-1912**, par A. Anrep. 1917. 47p. 29 planches, 6 figures, tableaux, 11 cartes.

See report No. 266 for English edition.

Édition épuisée.

N° de cat. M32-267F

- 268.—**Peat bogs investigated in Quebec; index map**, by A. Anrep. 1914. 35m : 1".

Accompanying report No. 266. See also map No. 484.

25¢.

Cat. No. M32-268

- 269.—**Large Tea Field peat bog, Quebec; map**, by A. Anrep. 1914. 2750' : 1".

Accompanying report No. 266.

Out of print.

Cat. No. M32-269



**Reports and maps—Rapports.—Continued—Suite.**

- 270.—**Small Tea Field peat bog, Quebec; map, by A. Anrep. 1914.**  
 2750' : 1".  
 Accompanying report No. 266.  
 25¢. Cat. No. M32-270
- 271.—**Lanoraie peat bog, Quebec; map, by A. Anrep. 1914.**  
 3000' : 1".  
 Accompanying report No. 266.  
 25¢. Cat. No. M32-271
- 272.—**St. Hyacinthe peat bog, Quebec; map, by A. Anrep. 1914.**  
 2500' : 1".  
 Accompanying report No. 266.  
 Out of print. Cat. No. M32-272
- 273.—**Rivière du Loup peat bog, Quebec; map, by A. Anrep. 1914.**  
 2800' : 1".  
 Accompanying report No. 266.  
 Out of print. Cat. No. M32-273
- 274.—**Cacouna peat bog, Quebec; map, by A. Anrep. 1914.**  
 1350' : 1".  
 Accompanying report No. 266.  
 Out of print. Cat. No. M32-274
- 275.—**Le Parc peat bog, Quebec; map, by A. Anrep. 1914.**  
 1300' : 1".  
 Accompanying report No. 266.  
 Out of print. Cat. No. M32-275
- 276.—**St. Denis peat bog, Quebec; map, by A. Anrep. 1914.**  
 1100' : 1".  
 Accompanying report No. 266.  
 Out of print. Cat. No. M32-276
- 277.—**Rivière Ouelle peat bog, Quebec; map, by A. Anrep. 1914.**  
 2500' : 1".  
 Accompanying report No. 266.  
 Out of print. Cat. No. M32-277
- 278.—**Moose Mountain peat bog, Ontario; map, by A. Anrep. 1914.**  
 300' : 1".  
 Accompanying report No. 266.  
 Out of print. Cat. No. M32-278
- 279.—**Report on the building and ornamental stones of Canada; Vol. III: Province of Quebec, by Wm. A. Parks. 1914. 304p. 52 pls., 12 figs., tables.**  
 Voir le rapport n° 389 pour l'édition française. See also reports No. 100, 203, 388, and 452.  
 50¢. Cat. No. M32-279
- 280.—**Rapport sur les pierres de construction et d'ornement du Canada; Vol. II: Provinces Maritimes, par Wm. A. Parks. 1916. 266p. 45 planches, 9 figures, tableaux.**  
 See report No. 203 for English edition. Voir aussi rapports n° 100A et 389.  
 Édition épuisée. N° de cat. M32-280F

# MINES BRANCH PUBLICATIONS

## Reports and maps—Rapports.—Continued—Suite.

281.—Preliminary report on the bituminous sands of Northern Alberta, by S. C. Ells. 1914. 92p. 55 pls., 5 figs., tables, 1 map in pocket.

Voir le rapport n° 282 pour l'édition française. See map No. 284. See also report No. 632.

Out of print.

Cat. No. M32-281

282.—Rapport préliminaire sur les sables bitumineux de l'Alberta Nord, par S. C. Ells. 1916. 96p. 55 planches, 5 figures, tableaux, 1 carte hors-texte.

See report No. 281 for English edition.

Édition épuisée.

N° de cat. M32-282F

283.—Preliminary report on the mineral production of Canada during the calendar year 1913, by John McLeish. 1914. 21p. Tables.

Part of report No. 285.

Out of print.

Cat. No. M32-283

284.—Portion of Northern Alberta showing position of outcrops of bituminous sand; index map, by S. C. Ells. 1914. 12½m : 1".

Accompanying reports No. 281 and 285.

Out of print.

Cat. No. M32-284

285.—Summary report of the Mines Branch of the Department of Mines for the calendar year 1913. 1914. 214p. 51 pls., 24 figs., table, 1 map. (Sess. Paper No. 26a-1914).

Contents.—Director's general report, by Eugene Haanel.—Individual reports:—Metalliferous Division: (1) Copper mines and copper mining in Canada; (2) Platinum discoveries in the vicinity of Nelson, B.C.; (3) Hall process for desulphurizing ores, by Alfred W. G. Wilson; (4) Iron ore occurrences in Cape Breton, by E. Lindeman, (5) Lode mining in Yukon, by T. A. MacLean;—Non-metalliferous Division: (1) Canadian markets for mineral products, by Howells Fréchette; (2) White mica occurrence in the Tête Jaune Cache and Big Bend, B.C., by Hugh S. de Schmid; (3) Saline springs of Manitoba, by L. H. Cole; (4) Bituminous sands of Northern Alberta, by S. C. Ells; (5) Building and ornamental stones of Quebec, by W. A. Parks;—Ore dressing and metallurgical Division: (1) Progress report, by G. C. Mackenzie; (2) Work of the Laboratories, by W. B. Timm; (3) Magnetic iron sands at Natashkwan, Que., by C. S. Parsons; (4) Processes for smelting zinc ores, by W. R. Ingalls; (5) Cobalt and its alloys, by Herbert T. Kalmus;—Fuel Testing Division: (1) Work at Fuel Testing Station, by B. F. Haanel; (2) Investigation of five lignite samples from Alberta, by B. F. Haanel and John Blizard; (3) Chemical Laboratory, by Edgar Stansfield; (4) Investigation of peat bogs, by Aleph von Anrep.—Appendices: Mineral production 1913 (see Report No. 283); Description of the Mines Branch Laboratories.

Voir le rapport n° 286 pour l'édition française. See map No. 284.

Out of print.

Cat. No. M32-285

286.—Rapport sommaire de la Division des mines du ministère des Mines, pour l'année civile 1913. 1915. 219p. 51 planches, 24 figures, tableaux, 1 carte. (Doc. parl. n° 26a-1914.)

Sommaire.—Rapport général du directeur, par Eugène Haanel.—Rapports individuels: Division métallifère: (1) Mines de cuivre et exploitation du cuivre au Canada; (2) Découvertes de platine dans le voisinage de Nelson, B.C.; (3) Le procédé Hall pour le dessoufrage des minerais, par A. G. W. Wilson; (4) Les gisements de minerai de fer au Cap Breton, par E. Lindeman; (5) Exploitation des filons au Yukon, par T. A. MacLean;—Division non-métallifère: (1) Le marché canadien à la recherche de divers produits minéraux, par Howells Fréchette; (2) Gisements



Reports and maps—Rapports.—Continued—Suite.

286.—Rapport sommaire, 1913.—Suite.

de mica blanc dans les districts de la cache de la Tête Jaune et de Big Bend, C.-B., par Hugh S. de Schmid; (3) Le sel du Canada, par L. H. Cole; (4) Sables bitumineux de l'Alberta Nord, par S. C. Ells; (5) Les pierres de construction et d'ornement de Québec, par W. A. Parks;—Division de la métallurgie et de la préparation du minerai: (1) Rapport des opérations, par G. S. MacKenzie; (2) Travaux aux laboratoires, par W. B. Timm; (3) Recherches sur les sables magnétiques de Natashkwan, Qué., par C. S. Parsons; (4) Recherches sur le zinc, par R. W. Ingalls; (5) Recherches sur le cobalt et les alliages du cobalt, par Herbert T. Kalmus;—Division des combustibles et d'essai de combustibles: (1) Travaux à la station des essais, par B. F. Haanel; (2) Résultat de l'examen de cinq échantillons de lignite d'Alberta, par B. F. Haanel et John Blizzard; (3) Laboratoire de chimie, par Edgar Stansfield; (4) Recherches sur les tourbières, par Aleph von Anrep.—Appendices: Rapport préliminaire sur la production minérale du Canada en 1913, par John McLeish; Description des laboratoires de la division des Mines.

See report No. 285 for English edition.

Édition épuisée.

N° de cat. M32-286F

287.—La production du fer et de l'acier au Canada pendant l'année civile 1912, par J. McLeish. 1915. 40p. Tableaux.

See report No. 247 for English edition.

Édition épuisée.

N° de cat. M32-287F

288.—La production de charbon et de coke au Canada pendant l'année civile 1912, par John McLeish. 1914. 40p. Tableaux.

See report No. 258 for English edition.

Édition épuisée.

N° de cat. M32-288F

289.—La production du ciment, de la chaux, des produits d'argile, de la pierre et d'autres matériaux de construction au Canada pendant l'année civile 1912, par John McLeish. 1914. 64p. Tableaux.

See report No. 257 for English edition.

Édition épuisée.

N° de cat. M32-289F

290.—La production de cuivre, or, plomb, nickel, argent, zinc et autres métaux au Canada pendant l'année civile 1912, par Cosmo T. Carthwright. 1914. 86p. Tableaux.

See report No. 256 for English edition.

Édition épuisée.

N° de cat. M32-290F

291.—Petroleum and natural gas resources of Canada, by F. G. Clapp and others. 1914-1915. 2 v.

Vol. 1.—Technology and exploitation. 378p. 21 pls., 25 figs., tables, 1 map.

See map No. 293. Voir le rapport n° 292 pour l'édition française.

Out of print.

Cat. No. M32-291/1

Vol. 2.—Description of occurrences. 1915. 404p. Illus., tables, maps.

Out of print.

Cat. No. M32-291/2

Separate parts of volume 2

Vol. 2, part 1.—Eastern Canada. 245p. 12 pls., 23 figs., 3 maps.

See maps No. 294, 295, and 296.

50¢.

Cat. No. M32-291/21

Vol. 2, part 2.—Western Canada. 159p. 19 pls., 17 figs., 3 maps.

See maps No. 297, 298, and 302.

25¢.

Cat. No. M32-291/22

## MINES BRANCH PUBLICATIONS

### Reports and maps—Rapports.—Continued—Suite.

- 292.—**Ressources du Canada en pétrole et en gaz naturel. Volume 1: Technologie et exploitation**, par Frederick G. Clapp. 1917. 398p. 21 planches, 25 figures, tableaux, 1 carte.

See report No. 291, Vol. I, for English edition.

Édition épuisée.

N° de cat. M32-292F

- 293.—**Dominion of Canada; map showing the occurrences of oil, gas, and tar sands.** 1915. 197.3m : 1".

Accompanying report No. 291, Vol. I.

Out of print.

Cat. No. M32-293

- 294.—**Reconnaissance map of part of Albert and Westmorland counties, New Brunswick**, by R. W. Ells and S. C. Ells. 1915. 1m : 1".

Accompanying report No. 291, Vol. 2.

Out of print.

Cat. No. M32-294

- 295.—**Gaspe oil fields, Quebec; sketch plan showing location of wells.** 1915. 2m : 1".

Accompanying report No. 291, Vol. 2.

Out of print.

Cat. No. M32-295

- 296.—**Southwestern Ontario; map showing gas and oil fields and pipe-lines.** 1915. 4m : 1".

Accompanying report No. 291, Vol. 2. See also map No. 523.

Out of print.

Cat. No. M32-296

- 297.—**Alberta, Saskatchewan, and Manitoba; geological map**, by W. Malcolm. 1914. 35m : 1".

Accompanying report No. 291, Vol. 2.

Out of print.

Cat. No. M32-297

- 298.—**Forty-ninth parallel, B.C. and Alberta; geological map**, by R. A. Daly. 1913. 1m : 1".

Accompanying report No. 291, Vol. 2.

Out of print.

Cat. No. M32-298

- 299.—**Peat, lignite, and coal: their value as fuels for the production of gas and power in the by-product recovery producer**, by B. F. Haanel. 1914. 261p. 29 pls., 39 figs., tables.

Voir le rapport n° 300 pour l'édition française.

50¢.

Cat. No. M32-299

- 300.—**Tourbe, lignite, et houille: leur valeur respective comme source de gaz de moteur et d'énergie, dans les gazogènes à sous-produits**, par B. F. Haanel. 1917. 206p. 29 planches, 39 figures, 20 tableaux.

See report No. 299 for English edition.

Édition épuisée.

N° de cat. M32-300F

- 301.—Not published.

- 302.—**Bow Island—Calgary; map showing location of main gas line.** 1915. 12½m : 1".

Accompanying report No. 291, Vol. 2.

Out of print.

Cat. No. M32-302



**Reports and maps—Rapports.—Continued—Suite.**

- 303.—Moose Mountain iron-bearing district, Ontario**, by E. Lindeman. 1914. 14p. 2 figs., 8 maps in envelope.  
Voir le rapport n° 304 pour l'édition française. See maps No. 205, 205A, 206, 207, 208, 208A, 208B, 208C.  
20¢. Cat. No. M32-303
- 304.—Le district ferrifère de Moose-Mountain, Ontario**, par E. Lindeman. 1917. 12p. 2 figures, 8 cartes dans une enveloppe.  
See report No. 303 for English edition.  
20¢ N° de cat. M32-304F
- 305.—Report on the non-metallic minerals used in the Canadian manufacturing industries**, by Howells Fréchette. 1914. 199p. 37 tables.  
Voir le rapport n° 306 pour l'édition française.  
50¢. Cat. No. M32-305
- 306.—Rapport sur les minéraux non-métalliques employés dans les industries manufacturières du Canada**, par Howells Fréchette. 1917. 204p. 37 tableaux.  
See report No. 305 for English edition.  
Édition épuisée. N° de cat. M32-306F
- 307.—Catalogue des publications françaises du ministère des Mines** (Division des mines et Commission géologique), jusqu'au 1<sup>er</sup> juillet 1914.  
Édition épuisée. N° de cat. M32-307F
- 308.—Recherches sur les charbons du Canada**, au point de vue de leurs qualités économiques, faites à l'Université McGill de Montréal sous le patronage du Gouvernement du Dominion, par J. B. Porter, R. J. Durley et autres. 1914-1917. Volume 1-4 et 6.  
See report No. 83 for English edition.

**SOMMAIRE**

- Vol. 1.—Rapport, parties 1-6.** 1914. 275p. 46 planches, 31 figures, tableaux, 5 cartes.  
Édition épuisée. N° de cat. M32-308/1F
- Vol. 2.—Rapport, parties 7-9.** 1915. 210p. 17 planches, 25 figures, tableaux.  
Édition épuisée. N° de cat. M32-308/2F
- Vol. 3.—Appendice 1: Résultats détaillés des essais de lavage de charbons**, par J. B. Porter. 1915. 172p. Tableaux, graphiques.  
Édition épuisée. N° de cat. M32-308/3F
- Vol. 4.—Appendice 2: Résultats détaillés des essais aux chaudières**, par R. J. Durley. 1915. 424p. Tableaux, graphiques.  
Édition épuisée. N° de cat. M32-308/4F
- Vol. 5.—Appendice 3:** (paru en anglais seulement).
- Vol. 6.—Appendice 4: Fabrication et essai du coke**, par Edgar Stansfield et J. B. Porter; **appendice 5: Travaux de laboratoire**, par Edgar Stansfield. 1917. 127p. 3 planches, 6 figures, 25 tableaux.  
Édition épuisée. N° de cat. M32-308/6F

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## Reports and maps—Rapports.—Continued—Suite.

- 309.—**The Physical properties of the metal cobalt**, by H. T. Kalmus and C. Harper. 1914. 48p. 14 pls., 8 figs., tables. (Researches on cobalt and cobalt alloys, conducted at Queen's University, Kingston, Ontario, for the Mines Branch of the Department of Mines, Part 2.)

Voir le rapport n° 310 pour l'édition française. See also reports No. 259, 334, 411, and 413.

25¢.

Cat. No. M32-309

- 310.—**Propriétés physiques du cobalt métallique**, par H. T. Kalmus. 1916. 51p. 14 planches, 8 figures, tableaux. (Recherches sur le cobalt et ses alliages, faites à l'Université Queens, de Kingston, Ontario, pour la Division des mines, du ministère des Mines, partie 2.)

See report No. 309 for English edition. Voir aussi rapports n°s 260, 335, 412 et 414.

Édition épuisée.

N° de cat. M32-310F

- 311.—**McPherson mine**, Barachois, Cape Breton county, Nova Scotia; **magnetometric map**, by A. H. A. Robinson. 1913. 200' : 1". Accompanying report No. 217, Vol. II.

Out of print.

Cat. No. M32-311

- 312.—**Iron ore deposits at Upper Glencoe**, Inverness county, Nova Scotia; **magnetometric map**, by E. Lindeman. 1913. 200' : 1". Accompanying report No. 217, Vol. II.

Out of print.

Cat. No. M32-312

- 313.—**Iron ore deposits at Grand Mira**, Cape Breton county, Nova Scotia; **magnetometric map**, by A. H. A. Robinson. 1913. 200' : 1". Accompanying report No. 217, Vol. II.

Out of print.

Cat. No. M32-313

- 314.—**Gisements de minerais de fer de la mine Bristol**, comté de Pontiac, Québec: **Levé magnétométrique**, etc., par E. Lindeman; **Concentration magnétique de minerais**, par Geo. S. Mackenzie. 1915. 15p. 2 planches, 2 tableaux et deux cartes hors-texte. (Bulletin n° 2.)

See report No. 67 for English edition.

Édition épuisée.

N° de cat. M32-314F

- 315.—**The production of iron and steel in Canada during the calendar year 1913**, by John McLeish. 1914. 44p. Tables.

Advance chapter of report No. 320.

Out of print.

Cat. No. M32-315

- 316.—**The production of coal and coke in Canada during the calendar year 1913**, by John McLeish. 1914. 40p. Tables.

Advance chapter of report No. 320.

Out of print.

Cat. No. M32-316

- 317.—**The production of copper, gold, lead, nickel, silver, zinc, and other metals in Canada during the calendar year 1913**, by Cosmo T. Cartwright. 1914. 77p. Tables.

Advance chapter of report No. 320.

Out of print.

Cat. No. M32-317



# PUBLICATIONS DE LA DIRECTION DES MINES

## Reports and maps—Rapports.—Continued—Suite.

- 318.—**The production of cement, lime, clay products, stone, and other structural materials in Canada during the calendar year 1913**, by John McLeish. 1914. 62p. Tables.

Advance chapter of report No. 320.

Out of print.

Cat. No. M32-318

- 319.—**General summary of the mineral production of Canada during the calendar year 1913**, by John McLeish. 1914. 50p. Diagrams, tables.

Advance chapter of report No. 320.

Out of print.

Cat. No. M32-319

- 320.—**Annual report on the mineral production of Canada during the calendar year 1913**, by John McLeish. 1914. 363p. Diagrams, tables.

Voir le rapport n° 321 pour l'édition française. See separates No. 315, 316, 317, 318, and 319.

25¢.

Cat. No. M32-320

- 321.—**Rapport annuel de la production minérale du Canada durant l'année civile 1913**, par John McLeish. 1915. 364p. Diagrammes, tableaux.

See report No. 320 for English edition.

Édition épuisée.

N° de cat. M32-321F

- 322.—**Economic minerals and mining industries of Canada**. Second edition. 1914. 78p. 19 pls., 1 map in pocket.

*Special edition prepared for the Panama-Pacific Exposition, San Francisco, 1915.*

Out of print.

Cat. No. M32-322

- 323.—**Products and by-products of coal**, by E. Stansfield and F. E. Carter. 1915. 51p. Tables.

Voir le rapport n° 324 pour l'édition française.

15¢.

Cat. No. M32-323

- 324.—**Produits et sous-produits de la houille**, par E. Stansfield et F. E. Carter. 1917. 60p. Tableaux.

See report No. 323 for English edition.

Édition épuisée.

N° de cat. M32-324F

- 325.—**Report on the salt deposits of Canada and the salt industry**, by L. Heber Cole. 1915. 152p. 26 pls., 25 figs., 4 maps.

Voir le rapport n° 326 pour l'édition française. See maps No. 327, 328, 329, and 330. See also reports No. 716.

50¢.

Cat. No. M32-325

- 326.—**Rapport sur les dépôts salifères du Canada et l'industrie du sel**, par L. Heber Cole. 1917. 172p. 27 planches, 25 figures, 4 cartes.

See report No. 325 for English edition.

Édition épuisée.

N° de cat. M32-326F

- 327.—**Dominion of Canada; map showing location of saline springs and salt areas**, by L. Heber Cole. 1915. 600m : 1".

Accompanying report No. 325.

25¢.

Cat. No. M32-327

- 328.—**Maritime Provinces; map showing location of saline springs**, by L. Heber Cole. 1915. 100m : 1".

Accompanying report No. 325.

25¢.

Cat. No. M32-328

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### Reports and maps—Rapports.—Continued—Suite.

- 329.—**Ontario-Michigan salt basin; map** showing probable limit of productive area, by L. Heber Cole. 1915. 25m : 1".  
Accompanying report No. 325.  
25¢.

Cat. No. M32-329

- 330.—**Northern Manitoba; map** showing location of saline springs, by L. H. Cole. 1915. 12½m : 1".  
Accompanying report No. 325.  
25¢.

Cat. No. M32-330

- 331.—**Results of the investigation of six lignite samples obtained from the province of Alberta**, by B. F. Haanel and John Blizard. 1915. 110p. 5 pls., 29 figs., tables.  
25¢.

Cat. No. M32-331

- 332.—Not published.

- 333.—**Preliminary report on the mineral production of Canada during the calendar year 1914**, by John McLeish. 1915. 24p. Tables.

Part of report No. 346.

Out of print.

Cat. No. M32-333

- 334.—**Electro-plating with cobalt**, by H. T. Kalmus, assisted by C. H. Harper and W. L. Savell. 1915. 69p. 4 figs., tables. (Researches on cobalt and cobalt alloys, conducted at Queen's University, Kingston, Ontario, for the Mines Branch of the Department of Mines, Part 3.)

Voir le rapport n° 335 pour l'édition française. See also reports No. 259, 309, 411, and 413.

25¢.

Cat. No. M32-334

- 335.—**Galvanoplastie au cobalt**, par H. T. Kalmus, en collaboration avec C. H. Harper et W.-L. Savell. 1917. 76p. 4 figures, tableaux. (Recherches sur le cobalt et ses alliages, faites à l'Université Queens, de Kingston, Ontario, pour la Division des mines du ministère des Mines, 3<sup>e</sup> partie.)

See report No. 334 for English edition. Voir aussi rapports n° 260, 310, 412 et 414.

Édition épuisée.

N° de cat. M32-335F

- 336.—**Notes on clay deposits near McMurray, Alberta**, by Sydney C. Ells. 1915. 15p. (Bulletin No. 10.)

10¢.

Cat. No. M32-336

- 337.—**Catalogue of Mines Branch publications** (8th to 11th editions).

Out of print.

Cat. No. M32-337

- 338.—**An investigation of the coal of Canada** with reference to their economic qualities as conducted at McGill University, Montreal, under the authority of the Dominion Government. Extra volume supplementing report No. 83: **Weathering of coal**, by J. B. Porter and others. 1915. 194p. 6 pls., 65 figs., tables.

\$1

Cat. No. M32-338

- 339.—Not published.

- 340.—**Atikokan iron-bearing district**, Atikokan mine and vicinity, Rainy River district, Ontario; **magnetometric map** of claims No. 10E, 11E, 12E, 24E, 25E, and 26E, by A. H. A. Robinson. 1914. 400' : 1".

Accompanying report No. 217, Vol. 1.

Out of print.

Cat. No. M32-340

**Reports and maps—Rapports.—Continued—Suite.**

- 340A.—**Atikokan iron-bearing district**, Atikokan mine and vicinity, Rainy River district, Ontario; **geological map** of claims No. 10E, 11E, 12E, 24E, 25E, and 26E, by A. H. A. Robinson. 1914. 400':1". Accompanying report No. 217, Vol. 1.  
25¢. Cat. No. M32-340A
- 341.—**Atikokan iron-bearing district**, Rainy River district, Ontario; **magnetometric map**, sheet No. 1, claims No. 400R, 401R, 402R, 212X, and 403R, by E. Lindeman. 1914. 400':1". Accompanying report No. 217, Vol. 2.  
25¢. Cat. No. M32-341
- 341A.—**Atikokan iron-bearing district**, Rainy River district, Ontario; **geological map**, sheet No. 1, claims No. 400R, 401R, 402R, 212X, and 403R, by E. Lindeman. 1914. 400':1". Accompanying report No. 217, Vol. 2.  
25¢. Cat. No. M32-341A
- 342.—**Atikokan iron-bearing district**, Rainy River district, Ontario; **magnetometric map**, sheet No. 2, claims No. 403R, 404R, 138X, 139X, and 140X, by E. Lindeman. 1914. 400':1".  
25¢. Cat. No. M32-342
- 342A.—**Atikokan iron-bearing district**, Rainy River district, Ontario; **geological map**, sheet No. 2, claims No. 403R, 404R, 138X, 139X, and 140X, by E. Lindeman. 1914. 400':1".  
25¢. Cat. No. M32-342A
- 343.—**Atikokan iron-bearing district**, Mile Post No. 140, Canadian Northern railway, Rainy River district, Ontario; **magnetometric map**, by E. Lindeman. 1914. 400':1". Accompanying report No. 217, Vol. 2.  
25¢. Cat. No. M32-343
- 343A.—**Atikokan iron-bearing district**, Mile Post No. 140, Canadian Northern Railway, Rainy River district, Ontario; **geological map**, by E. Lindeman. 1914. 400':1". Accompanying report No. 217, Vol. 2.  
25¢. Cat. No. M32-343A
- 344.—**Electrothermic smelting of iron ores in Sweden**, by A. Stansfield. 1915. 65p. 7 pls., 5 figs., tables.  
Voir le rapport n° 345 pour l'édition française.  
25¢. Cat. No. M32-344
- 345.—**Réduction électrothermique des minerais de fer en Suède**, par Alfred Stansfield. 1917. 67p. 7 planches, 5 figures, tableaux.  
See report No. 344 for English edition.  
Édition épuisée. N° de cat. M32-345F
- 346.—**Summary report of the Mines Branch of the Department of Mines, for the calendar year ending December 31, 1914.** 1915. 232p. 12 pls., 15 figs., tables. (Sess. Paper No. 26a-1915.)  
**Contents.—Director's general report**, by Eugene Haanel.—**Individual reports:—Metalliferous Division:** (1) *Examination of certain copper deposits in Quebec*, by A. W. G. Wilson; (2) *The Atikokan and Matawin iron ranges*, by E. Lindeman; (3) *The Atikokan iron range*, by A. H. A. Robinson;—**Non-Metalliferous Division:** (1) *Limestones of the provin-*



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ce of Quebec, by Howells Fréchette; (2) Investigation of miscellaneous non-metallic minerals, by H. S. de Schmid; (3) Sand areas of Quebec, by L. H. Cole; (4) Bituminous sands of northern Alberta, by S. C. Ells; (5) Building and ornamental stones of Prairie Provinces, by W. A. Parks;—Ore Dressing and Metallurgical Division: (1) Progress report, by G. C. Mackenzie; (2) Electro-plating with cobalt, by H. T. Kalmus;—Fuels and Fuel Testing Division: (1) Chemical laboratories, by E. Stansfield; (2) Investigation of peat bogs, by A. Anrep; (3) Mechanical work done at Fuel Testing Station, by A. W. Mantle.—Chemical Laboratory, Sussex St., by F. G. Wait;—Division of Mineral Resources and Statistics, by John McLeish;—Hillcrest Mine disaster, by J. G. S. Hudson.—Appendices: Preliminary report on mineral production (see Report No. 333);—Explosives Act, 4-5 George V.

Voir le rapport n° 347 pour l'édition française.

25¢.

Cat. No. M32-346

- 347.—**Rapport sommaire de la Division des mines du ministère des Mines pour l'année terminée le 31 décembre 1914.** 1916. 238p. 12 planches, 15 figures, tableaux. (Doc. de la session n° 26a-1915.)

Sommaire.—Rapport du directeur général, par Eugène Haanel.—Rapports individuels:—Division de métallurgie: (1) Examen de certains dépôts de cuivre dans Québec, par A. W. G. Wilson; (2) Les régimes de fer Atikokan et Matawin, par E. Lindeman; (3) Champ ferrugineux d'Atikokan, par A. H. A. Robinson;—Division non-métallifère: (1) Pierres calcaires de la province de Québec, par Howells Fréchette; (2) Enquête sur divers minerais non métalliques, par H. S. de Schmid; (3) Sables de la province de Québec, par L. H. Cole; (4) Les sables bitumineux de l'Alberta septentrional, par S. C. Ells; (5) Pierres de construction et d'ornementation, par W. A. Parks;—Traitement du minerai et Division de la métallurgie: (1) Rapport, par G. C. Mackenzie; (2) Électro-placage au cobalt, par H. T. Kalmus;—Division des combustibles et d'essai de combustibles: (1) Laboratoires chimiques, par E. Stansfield; (2) Recherches sur les tourbières, par A. Anrep; (3) Travaux mécaniques effectués à la Station de l'épreuve des combustibles, par A. W. Mantle;—Laboratoire de chimie, rue Sussex, par F. G. Wait;—Rapport des ressources minérales et des statistiques, par J. McLeish;—Désastre de la mine Hillcrest, par J. G. S. Hudson.—Appendices: Rapport préliminaire concernant la production minérale du Canada, 1914, par J. McLeish;—Loi des explosifs, 4-5 George V.

See report No. 346 for English edition.

Édition épuisée.

N° de cat. M32-347F

- 348.—**The production of coal and coke in Canada during the calendar year 1914,** by John McLeish. 1915. 39p. Tables.

Advance chapter of report No. 384.

10¢.

Cat. No. M32-348

- 349.—**The production of iron and steel in Canada during the calendar year 1914,** by John McLeish. 1915. 35p. Tables.

Advance chapter of report No. 384.

10¢.

Cat. No. M32-349

- 350.—**The production of copper, gold, lead, nickel, silver, zinc, and other metals in Canada during the calendar year 1914.** 1915. 75p.

Advance chapter of report No. 384.

10¢.

Cat. No. M32-350

- 351.—**Investigation of the peat bogs and peat industry of Canada, 1913-14,** by A. Anrep. 1915. 185p. 92 pls., 66 figs., tables, 30 maps. (Bulletin No. 11.)

Voir le rapport n° 352 pour l'édition française. See maps No. 354 to 383 inclusive.

Out of print.

Cat. No. M32-351

Reports and maps—Rapports.—Continued—Suite.

- 352.—**Recherches sur les tourbières et l'industrie de la tourbe au Canada, 1913-1914**, par Aleph Anrep. 1917. 191p. 92 planches, 66 figures, tableaux, 30 cartes. (Bulletin n° 11.)

See report No. 351 for English edition.

Édition épuisée.

N° de cat. M32-352F

- 353.—Not published.

- 354.—**Index map, showing location of peat bogs investigated in Ontario**, by A. Anrep. 1915. 35m:1".

Accompanying report No. 351. See also map No. 477.

Out of print.

Cat. No. M32-354

- 355.—**Richmond peat bog**, Carleton county, Ontario; **map**, by A. Anrep. 1915. 3400':1".

Accompanying report No. 351.

Out of print.

Cat. No. M32-355

- 356.—**Luther peat bog**, Wellington and Dufferin counties, Ontario; **map**, by A. Anrep. 1915. 3000':1".

Accompanying report No. 351.

Out of print.

Cat. No. M32-356

- 357.—**Amaranth peat bog**, Dufferin county, Ontario; **map**, by A. Anrep. 1915. 2200':1".

Accompanying report No. 351.

Out of print.

Cat. No. M32-357

- 358.—**Cargill peat bog**, Bruce county, Ontario; **map**, by A. Anrep. 1915. 6800':1".

Accompanying report No. 351.

Out of print.

Cat. No. M32-358

- 359.—**Westover peat bog**, Wentworth county, Ontario; **map**, by A. Anrep. 1915. 4000':1".

Accompanying report No. 351.

Out of print.

Cat. No. M32-359

- 360.—**Mash Hill peat bog**, Ontario county, Ontario; **map**, by A. Anrep. 1915. 4000':1".

Accompanying report No. 351.

Out of print.

Cat. No. M32-360

- 361.—**Sunderland peat bog**, Ontario county, Ontario; **map**, by A. Anrep. 1915. 2400':1".

Accompanying report No. 351.

Out of print.

Cat. No. M32-361

- 362.—**Manila peat bog**, Victoria county, Ontario; **map**, by A. Anrep. 1915. 2400':1".

Accompanying report No. 351.

Out of print.

Cat. No. M32-362

- 363.—**Stoco peat bog**, Hastings county, Ontario; **map**, by A. Anrep. 1915. 1900':1".

Accompanying report No. 351.

Out of print.

Cat. No. M32-363

- 364.—**Clareview peat bog**, Lennox and Addington counties, Ontario; **map**, by A. Anrep. 1915. 2000':1".

Accompanying report No. 351.

Out of print.

Cat. No. M32-364

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- 365.—**Index map, showing location of peat bogs investigated in Quebec**, by A. Anrep. 1915. 35m : 1".  
Accompanying report No. 351. See also map No. 484.  
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- 366.—**L'Assomption peat bog**, L'Assomption county, Quebec; **map**, by A. Anrep. 1915. 3800' : 1".  
Accompanying report No. 351.  
Out of print. Cat. No. M32-366
- 367.—**St. Isidore peat bog**, La Prairie county, Quebec; **map**, by A. Anrep. 1915. 2400' : 1".  
Accompanying report No. 351.  
Out of print. Cat. No. M32-367
- 368.—**Holton peat bog**, Chateauguay county, Quebec; **map**, by A. Anrep. 1915. 3800' : 1".  
Accompanying report No. 351.  
Out of print. Cat. No. M32-368
- 369.—**Index map, showing location of peat bogs investigated in Nova Scotia and Prince Edward Island**, by A. Anrep. 1915. 35m : 1".  
Accompanying report No. 351.  
Out of print. Cat. No. M32-369
- 370.—**Black Marsh bog**, Prince county, Prince Edward Island; **map**, by A. Anrep. 1915. 1900' : 1".  
Accompanying report No. 351.  
Out of print. Cat. No. M32-370
- 371.—**Portage peat bog**, Prince county, Prince Edward Island; **map**, by A. Anrep. 1915. 2600' : 1".  
Accompanying report No. 351.  
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- 372.—**Miscouche peat bog**, Prince county, Prince Edward Island; **map**, by A. Anrep. 1915. 3400' : 1".  
Accompanying report No. 351.  
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- 373.—**Muddy Creek peat bog**, Prince county, Prince Edward Island; **map**, by A. Anrep. 1915. 1220' : 1".  
Accompanying report No. 351.  
Out of print. Cat. No. M32-373
- 374.—**The Black Banks peat bog**, Prince county, Prince Edward Island; **map**, by A. Anrep. 1915. 2000' : 1".  
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- 375.—**Mermaid peat bog**, Queens county, Prince Edward Island; **map**, by A. Anrep. 1915. 1050' : 1".  
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- 376.—**Caribou peat bog**, Kings county, Prince Edward Island; **map**, by A. Anrep. 1915. 2500' : 1".  
Accompanying report No. 351.  
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- 377.—**Cherryfield peat bog**, Lunenburg county, Nova Scotia; **map**, by A. Anrep. 1915. 1100' : 1".  
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- 378.—**Tusket peat bog**, Yarmouth county, Nova Scotia; **map**, by A. Anrep. 1915. 1250' : 1".  
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- 379.—**Makoke peat bog**, Yarmouth county, Nova Scotia; **map**, by A. Anrep. 1915. 1900' : 1".  
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- 380.—**Heath peat bog**, Yarmouth county, Nova Scotia; **map**, by A. Anrep. 1915. 2700' : 1".  
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- 381.—**Port Clyde peat bog**, Shelburne county, Nova Scotia; **map**, by A. Anrep. 1915. 2200' : 1".  
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- 382.—**Latour peat bog**, Shelburne county, Nova Scotia; **map**, by A. Anrep. 1915. 2400' : 1".  
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- 383.—**Clyde peat bog**, Shelburne county, Nova Scotia; **map**, by A. Anrep. 1915. 4500' : 1".  
Accompanying report No. 351.  
Out of print. Cat. No. M32-383
- 383A.—**The production of cement, lime, clay products, stone and other structural materials in Canada during the calendar year 1914**, by John McLeish. 1915. 60p. Tables.  
Advance chapter of report No. 384.  
Out of print. Cat. No. M32-383A
- 384.—**Annual report on the mineral production of Canada during the calendar year 1914**, by John McLeish. 1915. 362p. Tables.  
Voir le rapport n° 415 pour l'édition française. See separates No. 348, 349, 350 and 383A.  
Out of print. Cat. No. M32-384
- 385.—**Investigation of a reported discovery of phosphate in Alberta**, by H. S. de Schmid. 1916. 38p. 12 pls., 1 fig., 1 map. (Bulletin No. 12.)  
Voir le rapport n° 386 pour l'édition française. See map No. 387.  
15¢. Cat. No. M32-385
- 386.—**Recherches sur un gisement de phosphate signalé dans l'Alberta**, par H. S. de Schmid. 1917. 41p. 12 planches, 1 figure, 1 carte. (Bulletin n° 12.)  
See report No. 385 for English edition.  
15¢. N° de cat. M32-386F

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- 387.—**Banff district, Alberta; geological map showing location of phosphate beds**, by J. A. Allan. 1916. 1½m:1".

Accompanying report No. 385.

25¢.

Cat. No. M32-387

- 388.—**Report on the building and ornamental stones of Canada; Vol. IV: Provinces of Manitoba, Saskatchewan and Alberta**, by W. A. Parks. 1916. 333p. 56 pls., 7 figs., 1 map.

See also reports No. 100, 203, 279, 452.

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Cat. No. M32-388

- 389.—**Rapport sur les pierres de construction et d'ornement du Canada; Volume 3: Province de Québec**, par W. A. Parks. 1916. 330p. 52 planches, 12 figures, tableaux.

See report No. 279 for English edition. Voir aussi rapports n° 100A et 280.

Édition épuisée.

N° de cat. M32-389F

- 390.—**Christina river map**, showing outcrops of bituminous sand along Christina valley; contour intervals of 20 feet, by S. C. Ells. 1915. 1000':1".

See also map No. 633.

Out of print.

Cat. No. M32-390

- 391.—**Clearwater river map**, showing outcrops of bituminous sand along Clearwater valley; contour intervals of 20 feet, by S. C. Ells. 1915. 1000':1".

See also maps No. 633, 634.

Out of print.

Cat. No. M32-391

- 392.—**Hanginstone-Horse rivers map**, showing outcrops of bituminous sand along Hanginstone and Horse River valleys; contour intervals of 20 feet, by S. C. Ells. 1915. 1000':1".

See also map No. 635.

Out of print.

Cat. No. M32-392

- 393.—**Steepbank river map**, showing outcrops of bituminous sand along Steepbank valley; contour intervals of 20 feet, by S. C. Ells. 1915. 1000':1".

See also map No. 636

Out of print.

Cat. No. M32-393

- 394.—**McKay river map** (3 sheets), showing outcrops of bituminous sand along McKay valley; contour intervals of 20 feet, by S. C. Ells. 1915. 1000':1".

See map No. 637.

Out of print.

Cat. No. M32-394

- 395.—**Moose river map**, showing outcrops of bituminous sand along Moose valley; contour intervals of 20 feet, by S. C. Ells. 1915. 1000':1".

See also map No. 638.

Out of print.

Cat. No. M32-395

- 396.—**Phosphate in Canada**, by Hugh S. Spence. 1920. 156p. 32 pls., 12 figs., 13 maps.

Voir le rapport n° 397 pour l'édition française. See maps No. 398, 399.

25¢.

Cat. No. M32-396

**Reports and maps—Rapports.—Continued—Suite.**

- 397.—**Le phosphate au Canada**, par Hugh S. Spence. 1921. 169p.  
31 planches, 12 figures, 13 cartes.  
See report No. 396 for English edition.  
Édition épuisée. N° de cat. M32-397F
- 398.—**Ontario phosphate area; index map**, showing location of the principal mines and occurrences, by H. S. de Schmid. 1916.  
3.95m : 1".  
Accompanying report No. 396.  
Out of print. Cat. No. M32-398
- 399.—**Quebec phosphate area; index map**, showing location of the principal mines and occurrences, by H. S. de Schmid. 1916.  
3.95m : 1".  
Accompanying report No. 396.  
Out of print. Cat. No. M32-399
- 400.—Not published.
- 401.—**Feldspar in Canada**, by Hugh S. de Schmid. 1916. 125p.  
22 pls., 12 figs., tables, 2 maps.  
Voir le rapport n° 402 pour l'édition française. See maps No. 403 and 404.  
25¢. Cat. No. M32-401
- 402.—**Feldspath au Canada**, par Hugh S. de Schmid. 1918. 132p.  
22 planches, 12 figures, tableaux, 2 cartes.  
See report No. 401 for English edition.  
Édition épuisée. N° de cat. M32-402F
- 403.—**Ontario feldspar area; map** showing location of the principal feldspar quarries, by H. S. de Schmid. 1916. 3.95m : 1".  
Accompanying report No. 401.  
25¢. Cat. No. M32-403
- 404.—**Quebec feldspar area; map** showing location of the principal feldspar quarries, by H. S. de Schmid. 1916. 3.95m : 1".  
Accompanying report No. 401.  
Out of print. Cat. No. M32-404
- 405.—**Orton mine and vicinity**, Hastings county, Ontario; **magneto-metric map**, by A. H. A. Robinson. 1915. 200' : 1".  
Accompanying report No. 217, Vol. 2.  
Out of print. Cat. No. M32-405
- 406.—**Description of the laboratories of the Mines Branch of the Department of Mines, Ottawa**. 1916. 51p. 60 pls., 12 figs. (Bulletin No. 13.)  
25¢. Cat. No. M32-406
- 407.—Not published.
- 408.—**Preliminary report on the mineral production of Canada during the calendar year 1915**, by J. McLeish. 1916. 28p. Tables.  
Part of report No. 421.  
Out of print. Cat. No. M32-408
- 409.—**Kaministiquia**, Thunder Bay district, Ontario; **magneto-metric map**, by A. H. A. Robinson. 1916. 400' : 1".  
Accompanying report No. 217, Vol. 2.  
Out of print. Cat. No. M32-409



# MINES BRANCH PUBLICATIONS

## Reports and maps—Rapports.—Continued—Suite.

- 410.—**Kaministiquia**, Thunder Bay district, Ontario; **geological map**, by A. H. A. Robinson. 1916. 400':1".

Accompanying report No. 217, Vol. 2.

Out of print.

Cat. No. M32-410

- 411.—**Cobalt alloys with non-corrosive properties**, by Herbert T. Kalmus and K. B. Blake. 1916. 37p. 31 pls., 50 figs., tables. (Researches on cobalt and cobalt alloys, conducted at Queen's University, Kingston, Ontario, for the Mines Branch of the Department of Mines, Part 4.)

Voir le rapport n° 412 pour l'édition française. See also reports No. 259, 309, 334 and 413.

25¢.

Cat. No. M32-411

- 412.—**Les alliages de cobalt à propriétés non-corrosives**, par Herbert T. Kalmus et K. B. Blake. 1917. 37p. 31 planches, 50 figures, tableaux. (Recherches sur le cobalt et ses alliages, faites à l'Université Queens, Kingston, Ontario, pour la Division des mines du ministère des Mines, 4<sup>e</sup> partie.)

See report No. 411 for English edition. Voir aussi rapports No. 260, 310, 335 et 414.

Édition épuisée.

N° de cat. M32-412F

- 413.—**Magnetic properties of cobalt and of Fe<sub>2</sub>Co**, by Herbert T. Kalmus and K. B. Blake. 1916. 18p. 1 pl., 13 figs., tables. (Researches on cobalt and cobalt alloys, conducted at Queen's University, Kingston, Ontario, for the Mines Branch of the Department of Mines, Part 5.)

Voir le rapport n° 414, pour l'édition française. See also reports No. 259, 309, 334 and 411.

25¢.

Cat. No. M32-413

- 414.—**Les propriétés magnétiques du cobalt et du Fe<sub>2</sub>Co**, par Herbert T. Kalmus et K. B. Blake. 1917. 19p. 1 planche, 13 figures, tableaux. (Recherches sur le cobalt et ses alliages, faites à l'Université Queens, de Kingston, Ontario, pour la Division des mines, du ministère des Mines, 5<sup>e</sup> partie.)

See report No. 413 for English edition. Voir aussi rapports n° 260, 310, 335 et 412.

Édition épuisée.

N° de cat. M32-414F

- 415.—**Rapport annuel de la production minérale au Canada durant l'année civile 1914**, par John McLeish. 1916. 360p. Tableaux.

See report No. 384 for English edition.

Édition épuisée.

N° de cat. M32-415F

- 416.—**Matawin iron range**, Thunder Bay district, Ontario; **magneto-metric map**, claims Nos. 215W to 223W inclusive, by A. H. A. Robinson. 1916. 400':1".

Accompanying report No. 217, Vol. 2.

25¢.

Cat. No. M32-416

- 417.—Not published.

- 418.—Not published.

- 419.—**The production of iron and steel in Canada during the calendar year 1915**, by John McLeish. 1916. 48p. Tables.

Advance chapter of report No. 426.

10¢.

Cat. No. M32-419

Reports and maps—Rapports.—Continued—Suite.

- 420.—The production of coal and coke in Canada during the calendar year 1915, by John McLeish. 1916. 42p. Tables. Advance chapter of report No. 426.

10¢.

Cat. No. M32-420

- 421.—Summary report of the Mines Branch of the Department of Mines for the calendar year ending December 31, 1915. 1916. 213p. 13 pls., 3 figs., tables. (Sess. paper No. 26a-1916.)

Contents.—Director's general report, by Eugene Haanel.—Individual reports:—Metalliferous Division: (1) Possibility of producing refined copper in Canada; (2) Antimony ores in Canada, by A. W. G. Wilson; (3) Investigation of iron ores, by A. H. A. Robinson;—Non-metalliferous Division: (1) Limestones of the province of Quebec, by Howells Fréchette; (2) Investigation of miscellaneous non-metallic minerals, by H. S. de Schmid; (3) Building and ornamental stones of Saskatchewan and Alberta, by W. A. Parks;—Ore Dressing and Metallurgical Division: (1) Progress report; and, (2) List of ores tested, by G. C. Mackenzie; (3) Descriptions of several mining properties and tests, by G. C. Mackenzie, W. B. Timm and C. S. Parsons;—Fuels and Fuel Testing Division: (1) Work at Fuel Testing Station, by B. F. Haanel; (2) Chemical laboratories of Fuel Testing Station, by E. Stansfield; (3) Investigation of peat bogs, by A. Anrep;—Ceramic Division: (1) Clay and shale resources; (2) Laboratory and equipment; (3) Testing of clays and shales, by J. Keele; (4) Clays of southern Saskatchewan, by N. B. Davis;—Work done by the chemical laboratory, Division of Chemistry, by F. G. Wait;—Report of Division of Mineral Resources and Statistics, by J. McLeish;—Explosives Division: (1) Mine accident at South Wellington, B.C.; (2) Explosion at the Reserve mine, Nanaimo, B.C., by J. G. S. Hudson.—Appendix: Preliminary report on the mineral production (see report No. 408).

Voir le rapport n° 422 pour l'édition française.

25¢.

Cat. No. M32-421

- 422.—Rapport sommaire de la Division des mines du ministère des Mines pour l'année terminée le 31 décembre 1915. 1917. 225p. 13 planches, 3 diagrammes, tableaux. (Doc. parl. n° 26a-1916.)

Sommaire.—Rapport du directeur général, par Eugène Haanel.—Rapports sommaires individuels:—Division métallifère: (1) Possibilité de produire du cuivre affiné au Canada; (2) Extraction des minerais d'antimoine, par A. H. A. Robinson;—Division non-métallifère: (1) Calcaires de la province de Québec, par Howells Fréchette; (2) Recherches sur les divers minéraux non métallifères, par H. S. de Schmid; (3) Régions sablonneuses, Québec et Ontario, par L. H. Cole; (4) Sables bitumineux de l'Alberta septentrional, par S. C. Ells; (5) Pierres de construction et d'ornementation, Saskatchewan et Alberta, par W. A. Parks;—Division de la métallurgie et de la préparation mécanique: (1) Rapport des opérations; (2) Liste des minerais dont on a fait l'essai, par G. C. Mackenzie; (3) Description de plusieurs propriétés minières et essais de minerais, par G. C. Mackenzie, W. B. Timm et C. S. Parsons;—Services des combustibles: (1) Travaux de la station d'essai, par B. F. Haanel; (2) Laboratoires chimiques de la station d'essai, par E. Stansfield; (3) Recherches sur les tourbières, par A. Anrep;—Division de la céramique: (1) Ressources en argile et en schistes; (2) Laboratoire et outillage; (3) Essais des argiles et des schistes, par Joseph Keele; (4) Gisements d'argile dans la Saskatchewan sud, par N. B. Davis;—Travaux du laboratoire de chimie, par F. G. Wait;—Division des recherches minérales et des statistiques, par John McLeish;—Division des explosifs: (1) Accident de mine à South Wellington, C.-B.; (2) Explosion à la mine de Réserve, C.-B., par J. G. S. Hudson.—Annexe: Rapport préliminaire sur la production des minéraux du Canada, durant l'année civile 1915, par John McLeish. See report No. 421 for English edition.

Édition épuisée.

N° de cat. M32-422F

## MINES BRANCH PUBLICATIONS

### Reports and maps—Rapports.—Continued—Suite.

- 423.—The production of cement, lime, clay products, stone, and other structural materials in Canada during the calendar year 1915, by John McLeish. 1916. 60p. Tables.

Advance chapter of report No. 426.

Out of print.

Cat. No. M32-423

- 424.—A general summary of the mineral production of Canada during the calendar year 1915, by John McLeish. 1916. 45p. Tables.

Advance chapter of report No. 426.

Out of print.

Cat. No. M32-424

- 425.—The production of copper, gold, lead, nickel, silver, zinc, and other metals in Canada during the calendar year 1915, 1916. 82p. Tables.

Advance chapter of report No. 426.

Out of print.

Cat. No. M32-425

- 426.—Annual report on the mineral production of Canada during the calendar year 1915, by John McLeish. 1917. 364p. Tables.

Voir le rapport n° 427 pour l'édition française. See separates No. 419, 420, 423, 424 and 425.

15¢.

Cat. No. M32-426

- 427.—Rapport annuel de la production minérale au Canada durant l'année civile 1915, par John McLeish. 1917. 352p. Tableaux.

See report No. 426 for English edition.

Édition épuisée.

N° de cat. M32-427F

- 428.—Report on the production of spelter in Canada, 1916, by Alfred W. G. Wilson. 1916. 60p. Tables.

15¢.

Cat. No. M32-428

- 429.—Not published.

- 430.—The coal-fields and coal industry of Eastern Canada: a general survey and description, by Francis W. Gray. 1917. 67p. 27 pls., 1 fig., 1 map in pocket. (Bulletin No. 14.)

See map No. 434.

25¢.

Cat. No. M32-430

- 431.—Not published.

- 432.—The mining of thin-coal seams as applied to the eastern coal-fields of Canada, by J. F. Kellock Brown. 1917. 132p. 1 pl., 61 figs., 1 map in pocket. (Bulletin No. 15.)

See map No. 434.

50¢.

Cat. No. M32-432

- 433.—Not published.

- 434.—Coal-fields of Nova Scotia and New Brunswick; index map, by D. B. Browning. 1916. 35m:1".

Accompanying reports No. 430 and 432.

Out of print.

Cat. No. M32-434

- 435.—Mineral springs of Canada. Part I: The radioactivity of some Canadian mineral springs, by J. Satterly and R. T. Elworthy. 1917. 60p. 23 pls., 5 figs., 1 map. (Bulletin No. 16.)

See map No. 437.

15¢.

Cat. No. M32-435



PUBLICATIONS DE LA DIRECTION DES MINES

Reports and maps—*Rapports.—Continued—Suite.*

- 436.—Not published.
- 437.—**Mineral springs of Ontario and Quebec; index map.** 1917.  
40m : 1".  
Accompanying report No. 435.  
25¢. Cat. No. M32-437
- 438.—**Western Steel Iron claim at Sechart, Vancouver Island, B.C.; magnetometric map, by E. Lindeman.** 1917. 60' : 1".  
Accompanying report No. 217, Vol. 2.  
25¢. Cat. No. M32-438
- 439.—**Baldwin mine, Hull township, Quebec; magnetometric map, by E. Nystrom.** 1917. 100' : 1".  
Accompanying report No. 217, Vol. 2.  
Out of print. Cat. No. M32-439
- 440.—**Standard specifications for the printing of Mines Branch reports, monographs, bulletins, etc. Part I: Specifications. Part II: Models.** 1916. 2 vol.  
Out of print. Cat. No. M32-440
- 441.—**Wilbur mine, Lavant township, Lanark county, Ontario; magnetometric map, by B. F. Haanel.** 1917. 100' : 1".  
Accompanying report No. 217, vol. 2.  
25¢. Cat. No. M32-441
- 442.—**Iron Crown claim, Nimpkish river, Vancouver Island, B.C.; magnetometric map, by E. Lindeman.** 1917. 100' : 1".  
Accompanying report No. 217, vol. 2.  
25¢. Cat. No. M32-442
- 443.—**Bristol mine, Pontiac county, Quebec; magnetometric map, by E. Lindeman.** 1917. 200' : 1".  
Accompanying report No. 217, Vol. 1.  
25¢. Cat. No. M32-443
- 444.—**Northeast Arm Iron range, lots Nos. E.T.W. 340, W.D. 341, W.D. 342, W.D. 343, and W.D. 351, Lake Timagami, Nipissing district, Ontario; magnetometric map, by E. Lindeman.** 1917. 200' : 1".  
Accompanying report No. 217, vol. 2.  
25¢. Cat. No. M32-444
- 445.—**Dominion of Canada and Newfoundland; map showing iron ore occurrences and blast furnaces, by E. Lindeman and L. L. Bolton,** 1917. 100m : 1".  
Accompanying report No. 217, Vol. 1 and 217, Vol. 2.  
25¢. Cat. No. M32-445
- 446.—**Radenhurst and Caldwell mines, Lanark county, Ont.; magnetometric map, by A. H. A. Robinson.** 1917. 200' : 1".  
Accompanying report No. 217, vol. 2.  
25¢. Cat. No. M32-446
- 447.—**The value of peat fuel for the generation of steam, by John Blizard.** 1917. 42p. 1 pl., 5 figs., 6 charts, tables. (Bulletin No. 17.)  
10¢. Cat. No. M32-447
- 448.—Not published.

# MINES BRANCH PUBLICATIONS

## Reports and maps—Rapports.—Continued—Suite.

449.—Preliminary report of the mineral production of Canada during the calendar year 1916, by John McLeish. 1917. 25p. Tables.

Part of report No. 454.

Out of print.

Cat. No. M32-449

450.—Not published.

451.—Not published.

452.—Report on the building and ornamental stones of Canada; Vol. V: British Columbia, by W. A. Parks. 1917. 236p. 47 pls., 3 figs., tables.

See also reports No. 100, 203, 279 and 388.

50¢.

Cat. No. M32-452

453.—Not published.

454.—Summary report of the Mines Branch of the Department of Mines for the calendar year ending December 31, 1916. 1917. 183p. 14 pls., 10 figs., tables. (Sess. paper No. 26a-1917.)

Contents.—Director's general report, by Eugene Haanel.—Individual reports:—Metalliferous Division: (1) Iron ores, by A. H. A. Robinson;—Non-metalliferous Division: (1) Separation of lime from Grenville magnesite, by Howells Fréchette; (2) Phosphate in the Rocky Mountains, and graphite near Cranbrook, B.C., by H. S. de Schmid; (3) Sands and sandstones of Canada; and (4) Occurrence and testing foundry moulding sands (see report No. 476), by L. H. Cole; (5) Bituminous sands of northern Alberta, by S. C. Ells; (6) Building and ornamental stones of British Columbia, by W. A. Parks;—Fuels and Fuel Testing Division: (1) Work at the Fuel Testing Station, by B. F. Haanel; (2) Chemical laboratories, by E. Stansfield; (3) Specifications for the purchase of oil, by E. Stansfield and Victor F. Murray; (4) The Hoffman potash test, by J. H. H. Nicolls; (5) Errors caused by the erosion of an iron ball mill, by R. C. Cantelo; (6) Oil-burette for fractional distillation and specific gravity determination; (7) Nitrogen distillation apparatus, by Victor F. Murray; (8) Investigation of peat bogs, by A. Anrep; Mechanical work done at Fuel Testing Station, by A. W. Mantle;—Ore Dressing and Metallurgical Division: (1) Progress report, by G. C. Mackenzie; (2) Chemical laboratory, by H. C. Mabey;—Ceramic Division: (1) Clay and clay resources; (2) Apatite: a substitute for bone ash in the manufacture of bone china; (3) Refractory materials in Canada; (4) Tests on clays and shales from Pembina mountains in southern Manitoba, by Joseph Keele; (5) Clay investigation in southern Saskatchewan, by N. B. Davis;—Chemical laboratory of the Division of Chemistry, by F. G. Wait;—Division of Mineral Resources and Statistics: (1) Mineral resources and statistics, by John McLeish; (2) Field work, by A. Buisson.—Appendix: Preliminary report on the mineral production (see report No. 449).

Voir le rapport n° 455 pour l'édition française.

25¢.

Cat. No. M32-454

455.—Rapport sommaire de la Division des mines du ministère des Mines pour l'année civile terminée le 31 décembre 1916. 1918. 188p. 14 planches, 10 figures, tableaux. (Doc. parl. n° 26a-1917.)

Sommaire.—Rapport du directeur général, par Eugène Haanel.—Rapports individuels:—Section des mines métalliques: (1) Les minerais de fer, par A. H. A. Robinson;—Section des mines non-métallifères: (1) Séparation de la chaux d'avec la magnésite de Grenville, par Howells Fréchette; (2) Phosphate dans les montagnes Rocheuses, et graphite près de Cranbrook, C.-B., par H. S. de Schmid; (3) Sables et grès du Canada; (4) Gisements et essais des sables de moulage pour fonderies, par L. H. Cole; (5) Sables bitumineux du nord de l'Alberta, par S. C. Ells; (6) Pierres

**Reports and maps—Rapports.—Continued—Suite.**

**455.—Rapport sommaire, 1916.—Suite.**

de construction et d'ornement du Canada, par W. A. Parks;—Section des combustibles: (1) Travaux à la station des combustibles, par B. F. Haanel; (2) Laboratoire de chimie, par E. Stansfield; (3) Cahier des charges pour l'achat des huiles, par E. Stansfield et V. Murray; (4) L'essai à la potasse, de Hoffman, par J. H. H. Nicolls; (5) Erreurs causées par l'érosion d'un broyeur à boulets de fer, par R. C. Cantelo; (6) Burette à l'huile pour la distillation fractionnée et la détermination du poids spécifique; (7) Appareil pour la distillation de l'azote, par Victor F. Murray; (8) Enquêtes sur les tourbières, par A. Anrep;—Section de la préparation mécanique et de la métallurgie: (1) Rapport des opérations, par G. C. Mackenzie; (2) Laboratoire de chimie, par H. G. Mabee;—Section de la céramique: (1) Enquête sur l'argile et les ressources en argile; (2) Apatite comme succédané de la cendre d'os dans la fabrication de la porcelaine; (3) Matières réfractaires au Canada; (4) Essais d'argiles et de schistes des monts Pembina dans le Manitoba méridional, par Joseph Keele; (5) Argile dans le Saskatchewan méridional, par N. B. Davis;—Rapport sur les travaux du laboratoire de chimie, par F. G. Wait;—Section des ressources minières et de la statistique: (1) Ressources minières et statistiques, par John McLeish; (2) Travail sur le terrain, par A. Buisson.—Appendice: Rapport préliminaire sur la production minière du Canada, 1916, par John McLeish.

See report No. 454 for English edition.

Édition épuisée.

N° de cat. M32-455F

456.—Not published.

457.—Not published.

458.—**The production of iron and steel in Canada during the calendar year 1916**, by John McLeish. 1917. 50p. Tables.

Advance chapter of report No. 474.

Out of print.

Cat. No. M32-458

459.—**Moose Creek peat bog**, Prescott, Russell and Stormont counties, Ontario; **map**, by A. Anrep. 1918. 3800' : 1".

Out of print.

Cat. No. M32-459

460.—**Westmeath peat bog**, Renfrew county, Ont.; **map**, by A. Anrep. 1917. 3100' : 1".

Out of print.

Cat. No. M32-460

461.—**Meath peat bog**, Renfrew county, Ont.; **map**, by A. Anrep. 1918. 2700' : 1".

Out of print.

Cat. No. M32-461

462.—**Farnham peat bog**, Missisquoi and Iberville counties, Que.; **map**, by A. Anrep. 1917. 5000' : 1".

25¢.

Cat. No. M32-462

463.—**Canrobert peat bog**, Rouville county, Que.; **map**, by A. Anrep. 1921. 3500' : 1".

25¢.

Cat. No. M32-463

464.—**Napierville peat bog**, Napierville county, Que.; **map**, by A. Anrep. 1918. 4000' : 1".

25¢.

Cat. No. M32-464

465.—**The production of coal and coke in Canada during the calendar year 1916**, by John McLeish. 1917. 46p. Tables.

Advance chapter of report No. 474.

10¢.

Cat. No. M32-465



# MINES BRANCH PUBLICATIONS

## Reports and maps—Rapports.—Continued—Suite.

- 466.—Test of some Canadian sandstones to determine their suitability as pulpstones, by L. Heber Cole. 1917. 17p. 6 pls., 4 figs., tables. (Bulletin No. 19.)

15¢.

Cat. No. M32-466

- 467.—Not published.

- 468.—Report on the clay resources of southern Saskatchewan, by N. B. Davis. 1918. 93p. 21 pls., 1 fig., 2 maps.

See maps No. 468A and 469.

Out of print.

Cat. No. M32-468

- 468A.—Southern Saskatchewan; geological map, by N. B. Davis. 1917. 35m : 1".

Accompanying report No. 468.

Out of print.

Cat. No. M32-468A

- 469.—Cypress Hills, Southern Saskatchewan; map, showing outcrops of the Whitemud clays, near Eastend, by N. B. Davis. 1917. 1½m : 1".

Accompanying report No. 468.

25¢.

Cat. No. M32-469

- 470.—The production of cement, lime, clay products, stone, and other structural materials in Canada during the calendar year 1916. 1917. 61p. Tables.

Advance chapter of report No. 474.

Out of print.

Cat. No. M32-470

- 471.—The production of copper, gold, lead, nickel, silver, zinc, and other metals in Canada during the calendar year 1916. 1917. 76p. Tables.

Advance chapter of report No. 474.

Out of print.

Cat. No. M32-471

- 472.—Mineral springs of Canada; Part II: The chemical character of some Canadian mineral springs, by R. T. Elworthy. 1918. 173p. 10 pls., 2 figs. (Bulletin No. 20.)

See also report No. 435.

Out of print.

Cat. No. M32-472

- 473.—Not published.

- 474.—Annual report on the mineral production of Canada during the calendar year 1916, by John McLeish. 1918. 343p. Tables. Voir le rapport n° 475 pour l'édition française. See separates No. 458, 465, 470, and 471.

53¢.

Cat. No. M32-474

- 475.—Rapport annuel de la production minérale au Canada durant l'année 1916, par John McLeish. 1918. 335p. Tableaux.

See report No. 474 for English edition.

Edition épuisée.

N° de cat. M32-475F

- 476.—Occurrence and testing of foundry moulding sands, by L. Heber Cole. 1917. 17p. 3 pls., 2 figs., tables. (Bulletin No. 21.) Reprinted from report No. 454.

Out of print.

Cat. No. M32-476

- 477.—Peat bogs investigated in Ontario; index map, by A. Anrep. 1918. 35m : 1".

Out of print.

Cat. No. M32-477

**Reports and maps—Rapports.—Continued—Suite.**

- 478.—**Preliminary report on the mineral production of Canada during the calendar year 1917**, by John McLeish. 1918. 20p. Tables.  
Out of print. Cat. No. M32-478
- 479.—**Analyses of Canadian fuels. Part I: Maritime Provinces**, by Edgar Stansfield and J. H. H. Nicolls. 1918. 28p. Tables. (Bulletin No. 22.)  
Out of print. Cat. No. M32-479
- 480.—**Analyses of Canadian fuels. Part II: Quebec and Ontario**, by Edgar Stansfield and J. H. H. Nicolls. 1918. 25p. Tables. (Bulletin No. 23.)  
15¢. Cat. No. M32-480
- 481.—**Analyses of Canadian fuels. Part III: Manitoba and Saskatchewan**, by Edgar Stansfield and J. H. H. Nicolls. 1918. 15p. Tables. (Bulletin No. 24.)  
Out of print. Cat. No. M32-481
- 482.—**Analyses of Canadian fuels. Part IV: Alberta and Northwest Territories**, by Edgar Stansfield and J. H. H. Nicolls. 2nd edition. 1922. 77p. Tables. (Bulletin No. 25. First edition, 1918, Second edition, 1921.)  
15¢. Cat. No. M32-482
- 483.—**Analyses of Canadian fuels. Part V: British Columbia and Yukon Territory**, by Edgar Stansfield and J. H. H. Nicolls. 1918. 24p. Tables. (Bulletin No. 26.)  
15¢. Cat. No. M32-483
- 484.—**Peat bogs investigated in Quebec; index map**, by A. Anrep. 1918. 35m : 1".  
Out of print. Cat. No. M32-484
- 485.—**Girard peat bog**, St. Johns and Napierville counties, Quebec; **map**, by A. Anrep. 1918. 3700' : 1".  
Out of print. Cat. No. M32-485
- 486.—**Pont Rouge peat bog**, Portneuf county, Quebec; **map**, by A. Anrep. 1918. 500' : 1".  
Out of print. Cat. No. M32-486
- 487.—**Peat bogs investigated in New Brunswick; index map**, by A. Anrep. 1918. 35m : 1".  
Out of print. Cat. No. M32-487
- 488.—**St. Stephen peat bog**, Charlotte county, N.B.; **map**, by A. Anrep. 1918. 800' : 1".  
Out of print. Cat. No. M32-488
- 489.—**Hyman peat bog**, New Brunswick; **map**, by A. Anrep. 1918. 500' : 1".  
Out of print. Cat. No. M32-489
- 490.—**Seely Cove peat bog**, Charlotte county, N.B.; **map**, by A. Anrep. 1918. 1000' : 1".  
Out of print. Cat. No. M32-490
- 491.—**Pocologan peat bog**, Charlotte county, N.B.; **map**, by A. Anrep. 1918. 1180' : 1".  
Out of print. Cat. No. M32-491

# MINES BRANCH PUBLICATIONS

## Reports and maps—Rapports.—Continued—Suite.

- 492.—**Musquash peat bog**, St. John county, N.B.; map, by A. Anrep.  
1918. 1780' : 1".

Out of print.

Cat. No. M32-492

- 493.—**Summary report of the Mines Branch of the Department of Mines for the calendar year ending December 31, 1917.** 1918. 153p. 4 figs., tables. (Sess. paper No. 26a-1918.)

**Contents.**—*Director's general report*, by Eugene Haanel.—*Individual summary reports*:—*Metalliferous Mines Division*: (1) Iron ores in Rainy River district, by A. H. A. Robinson;—*Non-metalliferous Mines Division*: (1) Limestones of Ontario, by Howells Fréchette; (2) The Canadian graphite industry, by H. S. Spence; (3) Investigation of certain sand and sandstone deposits, by L. H. Cole;—*Fuels and Fuel Testing Division*: (1) Work at the Fuel Testing Station, by B. F. Haanel; (2) Chemical laboratories, by E. Stansfield; (3) Investigation of peat bogs, by A. Anrep;—*Ore Dressing and Metallurgical Division*: (1) Progress report, by G. C. Mackenzie; (2) Ores tested and reports thereon, by W. B. Timm and C. S. Parsons; (3) Chemical laboratory, by H. C. Mabée;—*Ceramic Division*: (1) Investigation of clay and shale resources; (2) Pottery clays; (3) Magnesite; (4) Silica, by J. Keele;—*Road Materials Division*: (1) Tests of samples of bedrock; (2) Road Materials Laboratories; (3) Investigational work on the sampling and testing of bedrock; (4) Sampling and testing of fieldstone; (5) Special tests of bedrock collected from the quarries in Montreal, by K. A. Clark;—*Work of Division of Chemistry*, by F. G. Wait;—*Report of Division of Mineral Resources and Statistics*, by John McLeish.

Voir le rapport n° 494 pour l'édition française.

25¢.

Cat. No. M32-493

- 494.—**Rapport sommaire de la Division des mines du ministère des Mines pour l'année civile terminée le 31 décembre 1917.** 1919. 157p. 4 figures, tableaux. (Doc. parl. n° 26a-1918.)

**Sommaire.**—*Rapport du directeur général*, par E. Haanel.—*Rapports sommaires individuels*:—*Section des mines métallifères*: (1) Minerais de fer du district de Rainy River, par A. H. A. Robinson;—*Section des mines non-métallifères*: (1) Calcaires de l'Ontario, par Howells Fréchette; (2) L'industrie du graphite au Canada, par H. S. Spence; (3) Recherches sur certains gisements de sables et grès, par L. H. Cole;—*Section des combustibles*: (1) Travaux à la station d'essai des combustibles, par B. F. Haanel; (2) Laboratoire de chimie, par E. Stansfield; (3) Recherches sur les tourbières, par A. Anrep;—*Section de préparation du minerai et de métallurgie*: (1) Rapport des opérations, par G. C. Mackenzie; (2) Minerais essayés et rapports sur les essais, par W. B. Timm et C. S. Parsons; (3) Laboratoire de chimie, par H. C. Mabée;—*Section de la céramique*: (1) Ressources en argiles et schistes; (2) Argiles à poterie; (3) Magnésite; (4) Silice, par J. Keele;—*Section des matériaux de voirie*: (1) Essais d'échantillons de roche massive; (2) Laboratoires de matériaux de voirie; (3) Travaux de recherches sur l'échantillonnage et l'essai de roche massive; (4) Échantillonnage et essai de pierre des champs; (5) Essais de roche massive provenant des carrières de la ville de Montréal, par K. A. Clark;—*Travaux de laboratoire de la Section de la chimie*, par F. G. Wait;—*Rapport sur les travaux de la Section des ressources minérales et des statistiques*, par J. McLeish.

See report No. 493 for English edition.

Édition épuisée.

N° de cat. M32-494F

- 495.—Not published.

- 496.—**Results of forty-one steaming tests conducted at the Fuel Testing Station, Ottawa**, by John Blizard and E. S. Malloch. 1920. 83p. 11 figs., 41 charts, tables. (Bulletin No. 27.)

15¢

Cat. No. M32-496



# PUBLICATIONS DE LA DIRECTION DES MINES

## Reports and maps—Rapports.—Continued—Suite.

- 497.—The production of copper, gold, lead, nickel, silver, zinc, and other metals in Canada during the calendar year 1917. 1919. 71p. Tables.  
Advance chapter of report No. 504.  
Out of print. Cat. No. M32-497
- 498.—The production of iron and steel in Canada during the calendar year 1917, by John McLeish. 1919. 32p. Tables.  
Advance chapter of report No. 504.  
Out of print. Cat. No. M32-498
- 499.—General summary of the mineral production of Canada during the calendar year 1917, by John McLeish. 1919. 27p. Tables.  
Advance chapter of report No. 504.  
Out of print. Cat. No. M32-499
- 500.—The production of cement, lime, clay products, stone, and other structural materials in Canada during the calendar year 1917. 1919. 44p. Tables.  
Advance chapter of report No. 504.  
Out of print. Cat. No. M32-500
- 501.—The production of coal and coke in Canada during the calendar year 1917, by John McLeish. 1919. 39p. Tables.  
Advance chapter of report No. 504.  
10¢. Cat. No. M32-501
- 502.—The economic use of coal for steam-raising and house heating, by John Blizzard. 1919. 21p. (Bulletin No. 28.)  
15¢. Cat. No. M32-502
- 503.—Not published.
- 504.—Annual report on the mineral production of Canada during the calendar year 1917, by John McLeish. 1919. 258p. Tables.  
Voir le rapport n° 505 pour l'édition française. See separates No. 497, 498, 499, 500 and 501.  
Out of print. Cat. No. M32-504
- 505.—Rapport annuel de la production minérale du Canada durant l'année civile 1917, par John McLeish. 1919. 260p. Tableaux.  
See report No. 504 for English edition.  
Édition épuisée. N° de cat. M32-505F
- 506.—Preliminary report on the mineral production of Canada during the calendar year 1918, by John McLeish. 1919. 24p. Tables.  
10¢. Cat. No. M32-506
- 507.—Potash recovery at cement plants, by Alfred W. G. Wilson. 1919. 34p. 10 pls., tables. (Bulletin No. 29.)  
25¢. Cat. No. M32-507
- 508.—Not published.

## MINES BRANCH PUBLICATIONS

### Reports and maps—Rapports.—Continued—Suite.

- 509.—Summary report of the Mines Branch of the Department of Mines for the calendar year ending December 31, 1918. 1920. 225p. 6 figs., 9 diagrams, tables. (Sess. paper No. 26a-1919.)

Contents.—Director's general report, by Eugene Haanel.—Individual summary reports:—Metalliferous Mines Division: (1) Investigation of pyrites resources, by A. H. A. Robinson;—Non-Metalliferous Mines Division: (1) Limestones of Ontario and Quebec, by Howells Fréchette; (2) Graphite and the graphite industry; (3) Mica for condenser plates, by H. S. Spence; (4) Silica and moulding sand deposits of eastern Canada; (5) Building stones of Wolfe River district; (6) Discovery of rock salt at Malagash, Nova Scotia, by L. H. Cole;—Fuels and Fuel Testing Division: (1) Work at the Fuel Testing Station; (2) Test of New Brunswick oil shales in the Wallace retort, by B. F. Haanel; (3) Chemical laboratories, by E. Stansfield; (4) Lignite carbonization, by E. Stansfield and R. E. Gilmore; (5) Mechanical work, by A. W. Mantle;—Ore Dressing and Metallurgical Division: (1) Progress report, by G. C. Mackenzie; (2) List of ores tested and reports thereon, by W. B. Timm and C. S. Parsons; (3) Work of chemical laboratory, by H. C. Mabey;—Ceramic Division: (1) Clay and shale resources of British Columbia, and of eastern and northern Ontario, by J. Keele;—Road Materials Division: (1) Tests on bedrock, gravel, soil samples, and weathered rock, by K. A. Clark; (2) Alberta bituminous sands for rural roads, by G. C. Parker;—Work of Division of Chemistry, by F. G. Wait;—Report of Division of Mineral Resources and Statistics, by John McLeish.

Voir le rapport n° 510 pour l'édition française.

Out of print.

Cat. No. M32-509

- 510.—Rapport sommaire de la Division des mines du ministère des Mines pour l'année civile terminée le 31 décembre 1918. 1920. 235p. 6 figures, 9 diagrammes, tableaux. (Doc. parl. n° 26a-1919.)

Sommaire.—Rapport du directeur général, par Eugene Haanel.—Rapports sommaires individuels:—Section des mines métallifères: (1) Recherches sur les ressources de pyrites, par A. H. A. Robinson;—Section des mines non-métallifères: (1) Calcaires des provinces d'Ontario et de Québec, par Howells Fréchette; (2) Graphite et l'industrie du graphite; (3) Mica pour plaques de condensateurs, par H. S. Spence; (4) Gisements de silice et de sable de moulage de l'est du Canada; (5) Pierre de construction dans le district de Wolfe River; (6) Découverte de sel gemme à Malagash, Nouvelle-Écosse, par L. H. Cole;—Section des combustibles: (1) Travaux de la section; (2) Essai exécuté sur les schistes bitumineux du Nouveau-Brunswick au moyen de la cornue Wallace, par B. F. Haanel; (3) Laboratoires de chimie de la station d'essai, par E. Stansfield; (4) Carbonisation du lignite, par E. Stansfield et R. E. Gilmore; (5) Rapport des travaux mécaniques, par A. W. Mantle;—Section de préparation mécanique et de métallurgie: (1) Rapport des opérations, par G. C. Mackenzie; (2) Minerais essayés et rapports à leur sujet, par W. B. Timm and C. S. Parsons; (3) Rapport du laboratoire de chimie, par H. C. Mabey;—Section de la céramique: (1) Ressources en argile et schistes de la Colombie-Britannique, de l'est et du nord de l'Ontario, par J. Keele;—Section des matériaux de voirie: (1) Essais de roches de fond, de graviers, d'échantillons de sols et de roche altérées, par K. A. Clark; (2) Sables bitumineux de l'Alberta pour les routes rurales, par G. C. Parker;—Rapport sur les travaux de laboratoire de la Section de la chimie, par F. G. Wait;—Rapport sur les travaux de la Section des ressources minérales et des statistiques, par J. McLeish.

See report No. 509 for English edition.

Édition épuisée.

N° de cat. M32-510F

- 511.—Graphite, by Hugh S. Spence. 1920. 202p. 56 pls., 43 figs., tables, 6 maps.

Voir le rapport n° 512 pour l'édition française. See maps No. 513, 514, 515, 516, 517, and 518.

25¢.

Cat. No. M32-511

## Reports and maps—Rapports.—Continued—Suite.

- 512.—**Le graphite**, par Hugh S. Spence. 1921. 212p. 56 planches, 43 figures, tableaux, 6 cartes.  
See report No. 511 for English edition.  
Édition épuisée. N° de cat. M32-512F
- 513.—**Graphite occurrences in Bedford, Loughborough, Burgess, and Elmsley townships, Ontario; index map**, by H. S. Spence. 1919. 3.95m : 1".  
Accompanying report No. 511.  
Out of print. Cat. No. M32-513
- 514.—**Graphite occurrences in Monmouth, Cardiff, Monteagle, and Dungannon townships, Ontario; index map**, by H. S. Spence. 1919. 3.95m : 1".  
Accompanying report No. 511.  
Out of print. Cat. No. M32-514
- 515.—**Graphite occurrences in Brougham and Blithfield townships, Ontario; index map**, by H. S. Spence. 1919. 3.95m : 1".  
Accompanying report No. 511.  
Out of print. Cat. No. M32-515
- 516.—**Graphite occurrences in Grenville and Wentworth townships, Quebec; index map**, by H. S. Spence. 1919. 3.95m : 1".  
Accompanying report No. 511.  
Out of print. Cat. No. M32-516
- 517.—**Graphite occurrences in Amherst township, Quebec; index map**, by H. S. Spence. 1919. 3.95m : 1".  
Accompanying report No. 511.  
Out of print. Cat. No. M32-517
- 518.—**Graphite occurrences in Buckingham, and Lochaber townships, Quebec; index map**, by H. S. Spence. 1919. 3.95m : 1".  
Accompanying report No. 511.  
Out of print. Cat. No. M32-518
- 519.—**Smelter treatment rates.** Report of the Committee of Investigation in the matter of tolls charged by the Consolidated Mining & Smelting Company of Canada, Limited, at Trail, British Columbia, June, 1919, by Samuel S. Fowler, Chairman. 1919. 45p. 8 figs., tables. (Bulletin No. 30.)  
Appendix: Schedule "C": Lead ores, 1919.  
25¢. Cat. No. M32-519
- 520.—**Annual report on the mineral production of Canada during the calendar year 1918**, by John McLeish. 1919. 80p. Tables.  
Voir le rapport n° 521 pour l'édition française.  
15¢. Cat. No. M32-520
- 521.—**Rapport annuel de la production minérale du Canada durant l'année civile 1918**, par John McLeish. 1920. 80p. Tableaux.  
See report 520 for English edition.  
Édition épuisée. N° de cat. M32-521F
- 522.—**Report on some sources of helium in the British Empire**, by J. C. McLennan and others. 1920. 72p. 1 pl., 20 figs., tables, 4 maps. (Bulletin No. 31.)  
Appendix: Gas density balance.  
See maps No. 523, 524, 525, 526.  
15¢. Cat. No. M32-522



## MINES BRANCH PUBLICATIONS

### Reports and maps—Rapports.—Continued—Suite.

- 523.—Gas and oil fields and pipe lines in southwestern Ontario; map, by J. C. McLennan. 1919. 19m:1".

Accompanying report No. 522.

Out of print.

Cat. No. M32-523

- 524.—Petroleum, natural gas and bituminous sands in Western Canada (occurrences); map, by J. C. McLennan. 1919. 200m:1".

Accompanying report No. 522.

Out of print.

Cat. No. M32-524

- 525.—Main gas line, Bow island—Calgary, Alberta; map, by J. C. McLennan. 1919. 12½m:1".

Accompanying report No. 522.

Out of print.

Cat. No. M32-525

- 526.—Natural gas wells in British Columbia; index map, by J. C. McLennan. 35m:1".

Accompanying report No. 522.

Out of print.

Cat. No. M32-526

- 527.—The production of copper, gold, lead, nickel, silver, zinc, and other metals in Canada during the calendar year 1918, by John McLeish. 1919. 74p. Tables.

Out of print.

Cat. No. M32-527

- 528.—The production of coal and coke in Canada during the calendar year 1918, by John McLeish. 1919. 40p. Tables.

Out of print.

Cat. No. M32-528

- 529.—The production of iron and steel in Canada during the calendar year 1918, by John McLeish. 1920. 36p. Tables.

Out of print.

Cat. No. M32-529

- 530.—Report on road materials along the St. Lawrence river, from the Quebec boundary line to Cardinal, Ontario, by R. H. Picher. 1920. 65p. 6 pls., tables, 1 map. (Bulletin No. 32.)

Appendices: (1) Rock outcrops.—(2) Character of boulder deposits of field stone.—(3) Character of gravel deposits.—(4) Commercial development of gravel deposits.

See map No. 532.

25¢.

Cat. No. M32-530

- 531.—Not published.

- 532.—Deposits of stone and gravel available for highway construction between Cardinal, Ontario, and the Quebec boundary; index map, by R. H. Picher. 1920. 2m:1".

Accompanying report No. 530.

25¢.

Cat. No. M32-532

- 533.—Preliminary report of the mineral production of Canada during the calendar year 1919, by John McLeish. 1920. 24p. Tables.

Out of print.

Cat. No. M32-533

- 534.—Not published.

- 535.—Not published.

- 536.—Not published.

- 537.—Not published.

**Reports and maps—Rapports.—Continued—Suite.**

538.—Not published.

539.—Not published.

540.—Not published.

541.—Not published.

**542.—Summary report of the Mines Branch of the Department of Mines for the calendar year ending December 31, 1919. 1920.**  
182p. 2 figs., 5 diagrams, tables. (Sess. Paper No. 26a-1920.)

**Contents.—Director's general report, by Eugene Haanel.—Individual summary reports:—Metalliferous Mines Division:** (1) Progress report, by A. W. G. Wilson; (2) Iron ore deposits in northern Ontario, by A. H. A. Robinson;—**Non-metalliferous Division:** (1) Iron oxide pigments in the province of Quebec, by Howells Fréchette; (2) Investigations of miscellaneous non-metallic minerals, by H. S. Spence;—**Fuels and Fuel Testing Division:** (1) Fuel Testing Station, by B. F. Haanel; (2) Chemical laboratories, by E. Stansfield; (3) Lignite carbonization, by E. Stansfield and others; (4) Peat Committee for year ending December 31, 1919, by B. F. Haanel;—**Ore Dressing and Metallurgical Division:** (1) Progress report, by W. B. Timm; (2) List of ores tested, and detailed particulars of concentration and separation tests, by W. B. Timm and R. K. Carnochan; (3) Chemical laboratory, by H. C. Mabey;—**Ceramic Division:** (1) Residual clays in B.C.; (2) Clays and shales in vicinity of Fort William and Port Arthur; (3) Kaolin in Gatineau valley, by J. Keele; (4) Aluminum and its sources, by R. T. Elworthy; (5) Structural materials in Dundas, Stormont, and Glengarry counties, by J. Keele and L. H. Cole; (6) Pottery clays, by M. E. Young;—**Road Materials Division:** (1) Road materials and soil conditions in the area between Winnipeg and Brandon, Manitoba; (2) Road materials in Rocky Mountains Park, Alberta, by K. A. Clark; (3) Road materials investigation in Chateauguay and Beauharnois counties, Quebec, by H. Gauthier. Voir le rapport n° 543 pour l'édition française.  
Out of print. Cat. No. M32-542

**543.—Rapport sommaire de la Division des mines du ministère des Mines pour l'année civile terminée le 31 décembre 1919. 1921.**  
194p. 2 figures, 5 diagrammes, tableaux. (Doc. parl. n° 26a-1920.)

**Sommaire.—Rapport du directeur général, par Eugène Haanel.—Rapports sommaires individuels:—Section des mines métallifères:** (1) Exposé général des travaux, par A. W. G. Wilson; (2) Gisements de minerai de fer dans le nord de l'Ontario, par A. H. A. Robinson;—**Section des mines non-métalliques:** (1) Couleurs d'oxyde de fer dans la province de Québec, par Howells Fréchette; (2) Recherches sur divers minéraux non-métalliques, par H. S. Spence;—**Section des combustibles:** (1) Travaux de la station d'essai des combustibles, par B. F. Haanel; (2) Laboratoires de chimie, par E. Stansfield; (3) Carbonisation du lignite, par E. Stansfield et R. E. Gilmore; (4) Commission de la tourbe pour l'année 1919, par B. F. Haanel;—**Section de préparation mécanique et de métallurgie:** (1) Rapport des opérations, par W. B. Timm; (2) Minerais essayés et rapports s'y rapportant, par W. B. Timm and R. K. Carnochan; (3) Laboratoire de chimie, par H. C. Mabey;—**Section de la céramique:** (1) Argiles détritiques en Colombie-Britannique; (2) Argiles et schistes au voisinage de Fort William et de Port Arthur; (3) Le kaolin dans la vallée de la Gatineau, Québec, par J. Keele; (4) L'aluminium et les sources de ce métal, par R. T. Elworthy; (5) Matériaux de construction dans les comtés de Dundas, Stormont, et Glengary, Ontario, par J. Keele et L. H. Cole; (6) Argiles à poterie, par M. E. Young;—**Section des matériaux de voirie:** (1) Matériaux de voirie et état des terrains dans la région entre Winnipeg et Brandon, Manitoba; (2) Matériaux de voirie dans le Rocky Mountains Park, Alberta, par K. A. Clark; (3) Matériaux de voirie dans les comtés de Chateauguay et de Beauharnois, Québec, par H. Gauthier.

See report No. 542 for English edition.

Édition épuisée.

N° de cat. M32-543F

# MINES BRANCH PUBLICATIONS

## Reports and maps—Rapports.—Continued—Suite.

544.—The production of iron and steel in Canada during the calendar year 1919, by John McLeish. 1920. 45p. Tables.

15¢.

Cat. No. M32-544

545.—Annual report on the mineral production of Canada during the calendar year 1919, by John McLeish. 1920. 82p. Tables. Voir le rapport n° 546 pour l'édition française.

15¢.

Cat. No. M32-545

546.—Rapport annuel de la production minérale du Canada durant l'année civile 1919, par John McLeish. 1921. 82p. Tableaux. See report No. 545 for English edition.

Édition épuisée.

N° de cat. M32-546F

547.—The production of copper, gold, lead, nickel, silver, zinc, and other metals in Canada during the calendar year 1919, by John McLeish. 1921. 76p. Tables.

Out of print.

Cat. No. M32-547

548.—The production of coal and coke in Canada during the calendar year 1919, by John McLeish. 1921. 39p. Tables.

10¢.

Cat. No. M32-548

549.—Report on structural materials along the St. Lawrence river between Prescott, Ontario, and Lachine, Quebec, by Joseph Keele and L. Heber Cole. 1922. 119p. 30 pls., 5 figs., 3 maps.

Appendices.—“A” Pleistocene and recent fossils of the St. Lawrence valley, from Prescott to Beauharnois, by E. J. Whittaker.—“B” Ordovician fossils from St. Lawrence canal system localities, Ontario and Quebec, collected by L. H. Cole and J. Keele, identified by Alice E. Wilson.

Voir le rapport n° 550 pour l'édition française. See maps No. 551, 552, and 553.

25¢.

Cat. No. M32-549

550.—Rapport sur les matériaux de construction le long du fleuve St-Laurent, entre Prescott, Ont., et Lachine, Qué., par Joseph Keele et L. Heber Cole. 1924. 135p. 30 planches, 5 figures, 3 cartes.

Appendices.—“A” Fossiles pleistocènes et récents de la vallée du Saint-Laurent, de Prescott à Beauharnois, par E. J. Whittaker.—“B” Fossiles ordoviciens provenant des localités du système de canalisation du St-Laurent, Ontario et Québec, recueillis par L. H. Cole et J. Keele, identifiés par A. E. Wilson.

See report No. 549 for English edition.

Édition épuisée.

N° de cat. M32-550F

551.—Morrisburg sheet, St. Lawrence River section, Ontario; geological map, by J. Keele and L. H. Cole. 1922. 1m : 1".

Accompanying report No. 549.

25¢.

Cat. No. M32-551

552.—Cornwall sheet, St. Lawrence River section, Ontario and Quebec; geological map, by J. Keele and L. H. Cole. 1922. 1m : 1".

Accompanying report No. 549.

25¢.

Cat. No. M32-552

553.—Valleyfield sheet, St. Lawrence River section, Quebec; geological map, by J. Keele and L. H. Cole. 1922. 1m : 1".

Accompanying report No. 549.

25¢.

Cat. No. M32-553



## Reports and maps—Rapports.—Continued—Suite.

- 554.—**Preliminary report on the mineral production of Canada during the calendar year 1920**, by John McLeish. 1921. 24p. Tables.

Out of print.

Cat. No. M32-554

- 555.—**Silica in Canada: Its occurrence, exploitation, and uses: Part I: Eastern Canada**, by L. Heber Cole. 1923. 126p. 15 pls., 16 figs., 7 maps.

See maps No. 557, 558, 559, 560, 561, 562, and 563. See also report No. 686.

Out of print.

Cat. No. M32-555

- 556.—Not published.

- 557.—**Distribution of sandstone in the district of Nelles Corners, Haldimand county, Ontario; map**, by L. H. Cole. 1923. 1m : 1". Accompanying report No. 555.

Out of print.

Cat. No. M32-557

- 558.—**Distribution of sandstone in the district north of the St. Lawrence river, between Kingston and Brockville, Ontario; map**, by L. H. Cole. 1923. 3.95m : 1".

Accompanying report No. 555.

Out of print.

Cat. No. M32-558

- 559.—**Distribution of sandstone in the vicinity of Ottawa, Ontario; map**, by L. H. Cole. 1923. 3.95m : 1".

Accompanying report No. 555.

Out of print.

Cat. No. M32-559

- 560.—**Distribution of sandstone in the vicinity of Montreal, Quebec; map**, by L. H. Cole. 1923. 3.95m : 1".

Accompanying report No. 555.

Out of print.

Cat. No. M32-560

- 561.—**Chavigny and Montauban townships, Quebec; sketch map of quartzite deposits**, by L. H. Cole. 1923.  $\frac{1}{2}$ m : 1".

Accompanying report No. 555.

Out of print.

Cat. No. M32-561

- 562.—**Distribution of quartzite in the Kamouraska district, Quebec; map**, by L. H. Cole. 1923. 7.89m : 1".

Accompanying report No. 555.

Out of print.

Cat. No. M32-562

- 563.—**Pilgrim islands, River St. Lawrence, near St. André, Kamouraska county, Quebec; sketch map**, by L. H. Cole. 1923. 2000' : 1".

Accompanying report No. 555.

Out of print.

Cat. No. M32-563

- 564.—**The preparation, transportation, and combustion of powdered coal**, by John Blizard. 1921. 131p. 3 pls., 39 figs., tables.

Appendix.—*Boiler tests with pulverized coal*, by Henry Kreisinger and John Blizard.

75¢.

Cat. No. M32-564

- 565.—**Gas producer trials with Alberta coals**, by John Blizard and E. S. Malloch. 1921. 40p. 1 fig., 18 charts, tables. (Bulletin No. 33.)

No further Mines Branch reports were numbered as bulletins. Supplementing report No. 331.

25¢.

Cat. No. M32-565

# MINES BRANCH PUBLICATIONS

## Reports and maps—Rapports.—Continued—Suite.

- 566.—The production of copper, gold, nickel, silver, zinc, and other metals during the calendar year 1920, by Arthur Buisson. 1921. 76p. Tables.

Out of print.

Cat. No. M32-566

- 567.—The production of coal and coke in Canada during the calendar year 1920, by John Casey. 1921. 36p. Tables.

Out of print.

Cat. No. M32-567

- 568.—Annual report on the mineral production during the calendar year 1920, by John McLeish. 1921. 80p. Tables.

Since 1920, reports on the mineral production in Canada have been published by the Mining, Metallurgical and Chemical Branch, Dominion Bureau of Statistics, and applications for these reports should be addressed to the Dominion Statistician, Ottawa, Ont.

Voir le rapport n° 569 pour l'édition française.

Out of print.

Cat. No. M32-568

- 569.—Rapport annuel sur la production minérale du Canada durant l'année civile 1920, par John McLeish. 1922. 82p. Tableaux. See report No. 568 for English edition.

Édition épuisée.

N° de cat. M32-569F

- 570.—Barium and strontium in Canada, by Hugh S. Spence. 1922. 100p. 15 pls., 18 figs.

50¢.

Cat. No. M32-570

- 571.—Not published.

- 572.—Not published.

- 573.—Rapport sommaire des investigations de la Division des mines durant l'année civile se terminant le 31 décembre 1920. 1923. 92p. 7 figures, tableaux.

See report No. 574 for English edition.

Édition épuisée.

N° de cat. M32-573F

- 574.—Summary report of investigations made by the Mines Branch during the calendar year ending December 31, 1920. 1922. 87p. 7 figs.

Voir le rapport n° 573 pour l'édition française. See separates No. 575, 576, 577, and 578.

25¢.

Cat. No. M32-574

- 575.—Investigations in 1920: Mineral resources and technology. 1922. Pp. 5-22. Tables, fig.

Contents.—The development of chemical and metallurgical industries in Canada, by Dr. A. W. G. Wilson.—Titaniferous iron ore deposits in Quebec, Ontario, and Alberta, by A. H. A. Robinson.—Mineral pigments in eastern Canada, by Howells Fréchette.—Barytes, celestite, talc, and bentonite, by H. S. Spence.—Alkali deposits of western Canada, by L. H. Cole.—Bituminous sands of Alberta, by S. C. Ellis.

Separate part of report No. 574.

10¢.

Cat. No. M32-575

- 576.—Investigations in 1920: Ore dressing and metallurgy. 1922. Pp. 23-38. Tables.

Contents.—Ores tested, and reports thereon, by W. B. Timm and R. K. Carnochan.

Separate part of report No. 574.

10¢.

Cat. No. M32-576

Reports and maps—Rapports.—Continued—Suite.

- 577.—Investigations in 1920: Fuels and fuel testing. 1922. Pp. 39-54, Appendix, pp. 76-81.

Contents.—General review of investigations, by B. F. Haanel.—Carbonization of peat, by E. Stansfield and J. H. H. Nicolls.—Notes on the Hoffman potash test, by J. H. H. Nicolls.—Trent process for purifying coal high in ash; and, Preliminary report on the investigation of the manufacture of peat fuel, by B. F. Haanel.

Separate part of report No. 574.

25¢.

Cat. No. M32-577

- 578.—Investigations in 1920: Ceramics and road materials. 1922. Pp. 55-75.

Contents.—Testing of brick and fireclays from various Provinces: Pottery clays; Clay-working industry—structural materials and clay wares; Field examination and clay testing; Practical instructions as to sampling; Laboratory tests; Testing under working conditions, by Joseph Keele.—Road material survey along the Gananoque—Napanee section of the Toronto-Montreal highway, Ontario; Road materials in Nova Scotia, by H. Gauthier.

Separate part of report No. 574.

10¢.

Cat. No. M32-578

- 579.—Titanium, by A. H. A. Robinson. 1922. 127p. 5 figs., tables, 2 maps.

See maps No. 581 and 582.

75¢.

Cat. No. M32-579

- 580.—Not published.

- 581.—Orton mine and vicinity, Hastings county, Ontario; magneto-metric map, by A. H. A. Robinson. 1923. 200' : 1".

Accompanying report No. 579.

Out of print.

Cat. No. M32-581

- 582.—Seine Bay titaniferous magnetite deposits, Rainy River District, Ontario; magnetometric map, by A. H. A. Robinson. 1923. 400' : 1".

Accompanying report No. 579.

Out of print.

Cat. No. M32-582

- 583.—Talc and soapstone in Canada, by Hugh S. Spence. 1922. 85p. 2 pls., 15 figs., tables, 1 map.

See map No. 585.

50¢.

Cat. No. M32-583

- 584.—Not published.

- 585.—Principal talc and soapstone occurrences in the Eastern townships, Quebec; map, by H. S. Spence. 1922. 8m : 1".

Accompanying report No. 583.

Out of print.

Cat. No. M32-585

- 586.—Summary report of investigations made by the Mines Branch during the calendar year ending December 31, 1921. 1923. 346p. 20 pls., 15 figs., 21 diagrams, tables.

See separates No. 588, 589, 590, and 591.

Out of print.

Cat. No. M32-586

- 587.—Not published.



## MINES BRANCH PUBLICATIONS

### Reports and maps—Rapports.—Continued—Suite.

#### 588.—Investigations in 1921: Mineral resources and technology and Chemical Laboratory Research. 1923. Pp. 7-77. Tables.

**Contents.**—Coalmont amber, by Dr. A. W. G. Wilson.—The iron industry, by A. H. A. Robinson.—Iron oxide pigments in Ontario, by Howells Fréchette.—Talc and soapstone, calcite, feldspar, by H. S. Spence.—Alkali deposits of western Canada, by L. H. Cole and F. M. MacNiver.—Cretaceous shales of Manitoba and Saskatchewan; their economic value as a possible source of petroleum;—Oil shales of Canada, by S. C. Ellis.—Chemical products from natural gas;—The possibility of producing methanol (methyl alcohol) and formaldehyde from natural gas, by R. T. Elworthy.—Chemical and physical characters of bentonite, by E. A. Thompson and A. Sadler.  
Separate part of report No. 586.

25¢.

Cat. No. M32-588

#### 589.—Investigations in 1921: Ore dressing and metallurgy. 1923. Pp. 78-204. 12 pls., 11 figs., tables.

**Contents.**—General review of investigations;—List of ores and metallurgical products on which experimental test and research work was conducted, by W. B. Timm.—Reports of the investigations conducted, R. K. Carnochan, C. S. Parsons, R. J. Traill, and others.—Other test work of the Division;—Additional equipment for the laboratories, by W. B. Timm.—Work and investigations of the Chemical Laboratory, by H. C. Mabee.  
Separate part of report No. 586.

25¢.

Cat. No. M32-589

#### 590.—Investigations in 1921: Fuels and fuel testing. 1923. Pp. 205-252 and 319-338. 8 pls., diagrams, figs., tables.

**Contents.**—Lignite carbonization, by J. H. H. Nicolls and Harold Kohl.—Notes on the burning quality of kerosene oils for illuminating purposes;—The lubricating value of cod liver oil, by P. V. Rosewarne.—Preliminary report on the investigation of oil shales, by A. A. Swinnerton.—Preliminary report on the investigation of peat fuel, by B. F. Haanel.

Separate part of report No. 586.

25¢.

Cat. No. M32-590

#### 591.—Investigations in 1921: Ceramics and road materials. 1923. Pp. 253-318. Tables.

**Contents.**—Ceramics.—Outline of work done; Tests of clay from various provinces; Pottery clays; Removing scum from brick; Working stony clays for brick and tile; Method for sampling clay and shale deposits; Clayworking industry; Ball clay in Saskatchewan, by J. Keele.—Road Materials.—Laboratory tests on road building stone and gravel; Investigations of road materials in Prescott and Russell counties, Ont.; Road material surveys in Rocky Mountains Park; Experimental abrasion test on concrete; Results of physical tests upon samples of stone and gravel from Nova Scotia, by H. Gauthier.  
Separate part of report No. 586.

25¢.

Cat. No. M32-591

#### 592.—Molybdenum: Metallurgy and uses and the occurrence, mining and concentration of its ores, by V. L. Eardley-Wilmot. 1925. 292p. 11 pls., 55 figs., 41 tables, 3 maps.

See maps No. 594, 595, and 596.

Out of print.

Cat. No. M32-592

#### 593.—Not published.

#### 594.—Molybdenite occurrences in British Columbia; index map, by V. L. Eardley-Wilmot. 1925. 35m:1".

Accompanying report No. 592.

Out of print.

Cat. No. M32-594

**Reports and maps—Rapports.—Continued—Suite.**

595.—**Molybdenite occurrences in Ontario; index map**, by V. L. Eardley-Wilmot. 1925. 35m:1".  
Accompanying report No. 592.  
Out of print. Cat. No. M32-595

596.—**Molybdenite occurrences in Quebec and Maritime Provinces; index map**, by V. L. Eardley-Wilmot. 1925. 35m:1".  
Accompanying report No. 592.  
Out of print. Cat. No. M32-596

597.—**Development of chemical, metallurgical, and allied industries in Canada in relation to the mineral industry**, by A. W. G. Wilson. 1924. 329p. 39 tables, 12 diagrams.  
This report was also published in two volumes. See reports No. 598 and 599.  
\$1.75 Cat. No. M32-597

598.—**Development of chemical, metallurgical, and allied industries in Canada in relation to the mineral industry. Volume 1: Chemical industries**, by A. W. G. Wilson. Pp. 1-175. Tables, diagrams.  
Separate part of report No. 597.  
\$1 Cat. No. M32-598

599.—**Development of chemical, metallurgical, and allied industries in Canada in relation to the mineral industry. Volume 2: Metallurgical and allied industries**, by A. W. G. Wilson. Pp. 177-311. Tables, diagrams.  
Separate part of report No. 597.  
75¢. Cat. No. M32-599

600.—Not published.

601.—Not published.

602.—Not published.

603.—Not published.

604.—Not published.

605.—**Summary report on Mines Branch investigations during the calendar year ending December 31, 1922**. 1924. 273p. 5 pls., 17 figs., 11 diagrams, tables.  
See separates No. 607, 608, 609, and 610.  
Out of print. Cat. No. M32-605

606.—Not published.

607.—**Investigations in 1922: Mineral resources and technology, and Chemical Laboratory Research**. 1924. Pp. 7-70. Tables, figs., diagrams.

*Contents.—Mineral Resources Division:—Mineral pigments, by Howells Fréchette;—Alkali deposits, western Canada; Volcanic ash near Waldeck, Sask., by L. H. Cole;—Canadian feldspar in 1922; Fluorspar in 1922; Graphite in Canada, 1922; Talc and soapstone in Canada, 1922; Molybdenum situation in Canada, 1922, by V. L. Eardley-Wilmot;—Bituminous sands of northern Alberta, by S. C. Ellis.—Chemical Division:—Some Canadian fossil resins; Character of waters leaking into oil and gas wells, by R. T. Elworthy.*  
Separate part of report No. 605.

25¢. Cat. No. M32-607

# MINES BRANCH PUBLICATIONS

## Reports and maps—Rapports.—Continued—Suite.

- 608.—Investigations in 1922: Ore dressing and metallurgy. 1924. Pp. 71-193. Tables, pls., figs., diagrams.

*Contents.*—General review of investigations; List of ores and metallurgical products on which experimental test and research work was conducted, by W. B. Timm.—Reports on the investigations conducted, by R. K. Carnochan and others.—Other test work of the Division; Additional equipment for the laboratories, by W. B. Timm.

Separate part of report No. 605.

25¢.

Cat. No. M32-608

- 609.—Investigations in 1922: Fuels and fuel testing. 1924. Pp. 194-225 and 262-266. Tables, figs., diagrams.

*Contents.*—Carbonization of peat in commercial hardwood distillation ovens, by R. E. Gilmore and Harold Kohl.—Report on the treatment of oil shale from New Brunswick by the Ryan Oil Digestion process, by A. A. Swinnerton.—Preliminary gasoline survey, by P. V. Rosewarne.—Interim report of the Joint Peat Committee, by B. F. Haanel.

Separate part of report No. 605.

25¢.

Cat. No. M32-609

- 610.—Investigations in 1922: Ceramics and road materials. 1924. Pp. 226-261. Tables.

*Contents.*—Ceramic materials, by Howells Fréchette.—Investigation of road materials along Hawk Creek-McLeod Meadows section of the Banff-Windermere highway, Rocky Mountains Park; Prospecting for road materials between Massive and Johnson Canyon; Experiments for investigating the test for the crushing strength of rock, by H. Gauthier.—Road materials in Nova Scotia, by R. H. Picher.

Separate part of report No. 605.

25¢.

Cat. No. M32-610

- 611.—The mineral industries of Canada, compiled by A. H. A. Robinson. British Empire Exhibition editions: First edition. 1924. 138p. 35 pls., 1 map.—Second edition. 1925. 140p. 35 pls., 1 map.

Voir le rapport n° 612 pour l'édition française. See map No. 613.

25¢.

Cat. No. M32-611

- 612.—Les industries minérales du Canada, par A. H. A. Robinson. 1924. 152p. 35 planches, tableaux, carte.

See report No. 611 for English edition.

Édition épuisée.

N° de cat. M32-612

- 613.—Mineral map of the Dominion of Canada. British Empire Exhibition editions. (1st) 1924 and (2nd) 1925. 100m : 1".

Accompanying report No. 611.

Out of print.

Cat. No. M32-613

- 614.—Facts about peat, by B. F. Haanel. 1924. 48p. Tables.

Voir le rapport n° 615 pour l'édition française.

25¢.

Cat. No. M32-614

- 615.—Renseignements sur la tourbe, par B. F. Haanel. 1924. 48p. Tableaux.

See report No. 614 for English edition.

25¢.

N° de cat. M32-615F

- 616.—Investigations of mineral resources and the mining industry. 1923. 1924. 74p. Tables.

*Contents.*—Bentonite; and Feldspar, by H. S. Spence.—Bituminous sands of northern Alberta, by S. C. Ellis.—Natural abrasive materials in Canada, by V. L. Eardley-Wilmot.—Natural gas in Alberta, by R. T. Elworthy (see report No. 616A).—Sodium and magnesium salts of western Canada, by L. H. Cole.—Zinc-lead mining in British Columbia, by A. H. A. Robinson.—Canadian exposition train in France and Belgium, 1923, by A. Buisson.

15¢.

Cat. No. M32-616



Reports and maps—Rapports.—Continued—Suite.

- 616A.—Natural gas in Alberta, by R. T. Elworthy. 1924. 35p. Tables.

Advance section of report No. 616.

10¢.

Cat. No. M32-616A

- 617.—Investigations in ore dressing and metallurgy (Testing and Research Laboratories), 1923. 1925. 150p. 3 pls., 11 figs., tables.

*Contents.*—(1) General review of investigations and list of ores and metallurgical products on which experimental test and research work was conducted, by W. B. Timm.—(2) Reports on investigations conducted, by C. S. Parsons, R. K. Carnochan, and J. S. Godard.—(3) Reports on the work and investigations of the Chemical Laboratories of the Division, by H. C. Mabey, R. J. Traill, and B. P. Coyne.—(4) Selective flotation as applied to Canadian ores, by C. S. Parsons.—(5) Summary of experimental tests on the beneficiation of Canadian iron ores; (6) Selective flotation of the nickeliferous pyrrhotite ores of Ontario, by W. B. Timm.—(7) Description of ore concentration plants in Canada.

50¢.

Cat. No. M32-617

- 618.—Investigations of fuels and fuel testing (Testing and Research Laboratories), 1923. 1924. 86p. 2 pls., 5 figs., 7 diagrams, tables.

*Contents.*—(1) The carbonization of lignite and sub-bituminous coals, by Harold Khol.—(2) Survey of Maritime Provinces coals; (3) A study of the nature of sulphur in coal and coke from the Maritime Provinces, by J. H. H. Nicolls.—(4) Gasoline survey for 1923, by P. V. Rosewarne.—(5) The Hartman oil shale retort, by A. A. Swinnerton.—(6) Report on the Ramage process for oil refining, by R. E. Gilmore and P. V. Rosewarne.

25¢.

Cat. No. M32-618

- 619.—Investigations in ceramics and road materials (Testing and Research Laboratories), 1923. 1925. 75p. 1 pl., tables.

*Contents.*—Introductory.—Ceramics: (1) Investigation of ceramic industry, by Howells Fréchette; (2) Exhibit for the British Empire Exhibition; (3) Laboratory investigations; (4) Tunnel kilns, by L. P. Collin.—Road materials: (5) Road materials in Ontario and Quebec, with particular reference to their relative merits, based on a study of their use, by Henri Gauthier; (6) Road materials in Nova Scotia and New Brunswick, by R. H. Picher.

25¢.

Cat. No. M32-619

- 620.—Not published.

- 621.—Not published.

- 622.—Not published.

- 623.—Not published.

- 624.—Catalogue of Mines Branch publications. 14th edition, revised December 1926. 1927. 47p.

*Contents.*—Alphabetical guide to catalogue.—Reports.—Memorandum series.—Traductions françaises.—Maps.

Out of print.

Cat. No. M32-624

- 625.—Bituminous sands of Northern Alberta, by Sidney C. Ells. 1924. 35p. 6 pls., tables.

See also reports No. 632 and 684.

25¢.

Cat. No. M32-625

- 626.—Bentonite, by Hugh S. Spence. 1924. 36p. 14 pls., 2 figs.

Out of print.

Cat. No. M32-626

# MINES BRANCH PUBLICATIONS

## Reports and maps—Rapports.—Continued—Suite.

- 627.—**The mining laws of Canada**—a digest of Dominion and Provincial laws. 1924. 43p. (British Empire Exhibition edition).

Out of print.

Cat. No. M32-627

- 628.—**Central and district heating**: possibilities of application in Canada, by F. A. Combe. 1924. 79p. 26 figs., 4 tables. (Dominion Fuel Board No. 3.)

Voir le rapport n° 629 pour l'édition française.

25¢.

Cat. No. M32-628

- 629.—**Chauffage central et régional**: possibilité de sa mise en pratique au Canada, par F. A. Combe. 1925. 82p. 28 figures, 4 tableaux. (Commission fédérale du combustible n° 4.)

See report No. 628 for English edition.

Édition épuisée.

N° de cat. M32-629F

- 630.—**Coke as a household fuel in central Canada**, by J. L. Landt. 1925. 140p. 51 pls., 18 figs., 24 tables. (Dominion Fuel Board No. 5.)

Voir le rapport n° 631 pour l'édition française.

25¢.

Cat. No. M32-630

- 631.—**Le coke comme combustible de ménage dans le Canada central**, par J. L. Landt. 1926. 149p. 51 planches, 18 figures, 24 tableaux. (Commission fédérale du combustible n° 6.)

See report No. 630 for English edition.

Édition épuisée.

N° de cat. M32-631F

- 632.—**Bituminous sands of northern Alberta**: occurrence and economic possibilities, report on investigations to the end of 1924, by S. C. Ells. 1926. 244p. 43 pls., 47 figs., 6 tables. In portfolio: 8 maps and 4 sheets showing projected position of bituminous sand.

See maps No. 633, 634, 635, 636, 637, 638, 639, and 640. See also reports No. 625 and 684.

75¢.

Cat. No. M32-632

- 633.—**Bituminous sands of northern Alberta, sheet No. 1**: Townships 87, 88, and 89; **topographical map**, by S. C. Ells. 1925.  $\frac{1}{2}$ m : 1".

Accompanying report No. 632.

25¢.

Cat. No. M32-633

- 634.—**Bituminous sands of northern Alberta, sheet No. 2**: Townships 88 and 89; **topographical map**, by S. C. Ells. 1925.  $\frac{1}{2}$ m : 1". Accompanying report No. 632.

25¢.

Cat. No. M32-634

- 635.—**Bituminous sands of northern Alberta, sheet No. 3**: Townships 90 and 91; **topographical map**, by S. C. Ells. 1925.  $\frac{1}{2}$ m : 1".

Accompanying report No. 632.

25¢.

Cat. No. M32-635

- 636.—**Bituminous sands of northern Alberta, sheet No. 4**: Townships 92 and 93; **topographical map**, by S. C. Ells. 1925.  $\frac{1}{2}$ m : 1". Accompanying report No. 632.

25¢.

Cat. No. M32-636

**Reports and maps—Rapports.—Continued—Suite.**

637.—**Bituminous sands of northern Alberta, sheet No. 5:** Townships 94 and 95; **topographical map**, by S. C. Ells. 1925.  $\frac{1}{2}$ m:1".

Accompanying report No. 632.

Out of print.

Cat. No. M32-637

638.—**Bituminous sands of northern Alberta, sheet No. 6:** Townships 96 and 97; **topographical map**, by S. C. Ells. 1925.  $\frac{1}{2}$ m:1".

Accompanying report No. 632.

Out of print.

Cat. No. M32-638

639.—**Bituminous sands of northern Alberta, sheet No. 7:** Township 98; **topographical map**, by S. C. Ells. 1925.  $\frac{1}{2}$ m:1".

Accompanying report No. 632.

25¢.

Cat. No. M32-639

640.—**Bituminous sands of northern Alberta, sheet No. 8:** Townships 99 and 100; **topographical map**, by S. C. Ells. 1925.  $\frac{1}{2}$ m:1".

Accompanying report No. 632.

25¢.

Cat. No. M32-640

641.—**Peat: its manufacture and uses**, by B. F. Haanel. (Final report of the Peat Committee appointed jointly by the Governments of the Dominion of Canada and the Province of Ontario). 1926. 298p. 58 pls., 46 figs., 28 tables.

**Appendices.**—"A" *Investigation of drying conditions obtaining during the manufacture of peat fuel at the Alfred peat bog*, by H. A. Leverin.—"B" *Preliminary report on the relations of the maceration to the drying qualities of peat*, by R. E. Gilmore.—"C" *Manufacture of carbonized peat at Dumfries, Scotland*, report by J. O. Roos of Hjelmsater.

50¢.

Cat. No. M32-641

642.—**Investigations of mineral resources and the mining industry, 1924.** 1926. 118p. 5 pls., figs., tables.

**Contents.**—(1) *A review of fifteen years' progress in the production of non-metallic minerals in Canada, by members of the staff of the Mineral Resources Division.*—(2) *Titaniferous magnetite deposits of Bourget township, Chicoutimi district, Quebec*, by A. H. A. Robinson.—(3) *The goldfields of western Quebec*, by W. B. Timm and A. H. A. Robinson.—(4) *Magnesium sulphate in B.C.*; (5) *Sodium carbonate in B.C.*, by M. F. Goudge.—(6) *Natural gas and petroleum in northern Alberta*, by R. T. Elworthy.

Voir le rapport n° 685 pour l'édition française.

25¢.

Cat. No. M32-642

643.—**Investigations in ore dressing and metallurgy** (Testing and Research Laboratories), 1924. 1926. 115p. 6 figs., 7 tables.

**Contents.**—(1) *General review of investigations*, by W. B. Timm.—*Reports of investigations:* (2) *Ore Dressing and Metallurgical Laboratory*, by W. B. Timm, C. S. Parsons, R. K. Carnochan, and J. S. Godard; (3) *Hydrometallurgical Laboratory*, by R. J. Traill and W. R. McClelland; (4) *Chemical Laboratory of the Division*, by H. C. Mabee.—(5) *The concentration of lead-zinc ores of eastern Canada; The concentration of the Lake George antimony ores*, by C. S. Parsons.

25¢.

Cat. No. M32-643



# MINES BRANCH PUBLICATIONS

## Reports and maps—Rapports.—Continued—Suite.

- 644.—Investigations of fuels and fuel testing (Testing and Research Laboratories), 1924. 1926. 81p. 4 pls., 5 figs., tables.

*Contents.*—(1) Coking experiments on coals from the Maritime Provinces, by B. F. Haanel and R. E. Gilmore.—(2) Friability tests on various fuels sold in Canada, by J. H. H. Nicolls.—(3) The effects of exposing Canadian lignite to atmospheres of different humidities, by J. H. H. Nicolls.—(4) The examination of some lubricating oils sold in Canada, by P. V. Rosewarne.—(5) Gasoline survey for 1924, by P. V. Rosewarne and J. McD. Chantler.—(6) Report of carbonization and washing experiments on sub-bituminous coal from Coal Valley, Alberta, by R. A. Strong.—(7) Distillation of oil shale—comparison of laboratory methods, by A. A. Swinnerton.

25¢.

Cat. No. M32-644

- 645.—Investigations in ceramics and road materials (Testing and Research Laboratories), 1924. 1925. 45p. Tables.

*Contents.*—Introductory.—Ceramics: (1) Ceramic industry, by Howells Fréchette; (2) Laboratory investigations; (3) Cost of burning brick and tile, by L. P. Collin.—Road materials: (4) New Brunswick and Nova Scotia, by R. H. Picher.

25¢.

Cat. No. M32-645

- 646.—Sodium sulphate of Western Canada: occurrence, uses, and technology, by L. Heber Cole. 1926. 160p. 15 pls., 16 figs., 10 tables, 22 maps.

See maps No. 647 to 668 inclusive.

40¢.

Cat. No. M32-646

- 647.—Sodium sulphate occurrences in western provinces of Canada; index map, by L. H. Cole. 1926. 35m : 1".

Accompanying report No. 646.

25¢.

Cat. No. M32-647

- 648.—Deposit No. 1: Muskiki Lake, Sask., sodium sulphate deposit; map, by L. H. Cole. 1926. 4620' : 1".

Accompanying report No. 646.

25¢.

Cat. No. M32-648

- 649.—Deposit No. 2: Frederick Lake, Sask., sodium sulphate deposit; map, by L. H. Cole. 1926. 2700" : 1'.

Accompanying report No. 646.

25¢.

Cat. No. M32-649

- 650.—Deposit No. 6: Chain Lake, Sask., sodium sulphate deposit; map, by L. H. Cole. 1926. 2100' : 1".

Accompanying report No. 646.

25¢.

Cat. No. M32-650

- 651.—Deposit No. 7: Snakehole Lake, Sask., sodium sulphate deposit; map, by L. H. Cole. 1926. 1650' : 1".

Accompanying report No. 646.

25¢.

Cat. No. M32-651

- 652.—Deposit No. 8: Corral Lake, Sask., sodium sulphate deposit; map, by L. H. Cole. 1926. 1950' : 1".

Accompanying report No. 646.

25¢.

Cat. No. M32-652

- 653.—Deposit No. 9: Ingebright Lake, Sask., sodium sulphate deposit No. 1; map, by L. H. Cole. 1926. 1950' : 1".

Accompanying report No. 646.

25¢.

Cat. No. M32-653

## Reports and maps—Rapports.—Continued—Suite.

- 654.—**Deposit No. 11: Berry Lake, Sask., sodium sulphate deposit; map, by L. H. Cole. 1926. 1750' : 1".**  
Accompanying report No. 646.  
25¢. Cat. No. M32-654
- 655.—**Deposit No. 42: Sybouts Lake, Sask., sodium sulphate deposit No. 1; map, by L. H. Cole. 1926. 1650' : 1".**  
Accompanying report No. 646.  
25¢. Cat. No. M32-655
- 656.—**Deposit No. 13: Ceylon Lake, Sask., sodium sulphate deposit; map, by L. H. Cole. 1926. 2900' : 1".**  
Accompanying report No. 646.  
25¢. Cat. No. M32-656
- 657.—**Deposit No. 15: Whiteshore Lake, Sask., sodium sulphate deposit; map, by L. H. Cole. 1926. 3250' : 1".**  
Accompanying report No. 646.  
25¢. Cat. No. M32-657
- 658.—**Deposit No. 19: Vincent Lake, Sask., sodium sulphate deposit; map, by L. H. Cole. 1926. 1600' : 1".**  
Accompanying report No. 646.  
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- 659.—**Deposit No. 28: Regina Beach, Sask., sodium sulphate deposit No. 1; map, by L. H. Cole. 1926. 600' : 1".**  
Accompanying report No. 646.  
25¢. Cat. No. M32-659
- 660.—**Deposit No. 29: Regina Beach, Sask., sodium sulphate deposit No. 2; map, by L. H. Cole. 1926. 1050' : 1".**  
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- 661.—**Deposit No. 30: Horseshoe Lake, Horizon, Sask., sodium sulphate deposit; map, by L. H. Cole. 1926. 2200' : 1".**  
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- 662.—**Deposit No. 35: Boot Lake, Sask., sodium sulphate deposit; map, by L. H. Cole. 1926. 2000' : 1".**  
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- 663.—**Deposit No. 37: Grandora Lake, Sask., sodium sulphate deposit No. 1; map, by L. H. Cole. 1926. 1000' : 1".**  
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25¢. Cat. No. M32-663
- 664.—**Deposit No. 37A: Grandora Lake, Sask., sodium sulphate deposit No. 2; map, by L. H. Cole. 1926. 1900' : 1".**  
Accompanying report No. 646.  
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- 665.—**Deposit No. 12: Sybouts Lake, Sask., sodium sulphate deposit No. 2; map, by L. H. Cole. 1926. 2400' : 1".**  
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666.—**Deposit No. 48: Alsask Lake, Sask., sodium sulphate deposit; map, by L. H. Cole. 1926. 1680' : 1".**

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25¢.

Cat. No. M32-666

667.—**Deposit No. 69: Metiskow Lake, Alberta, sodium sulphate deposit; map, by L. H. Cole. 1926. 2050' : 1".**

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668.—**Deposit No. 82: Ingebright Lake, Sask., sodium sulphate deposit No. 2; map, by L. H. Cole. 1926. 1400' : 1".**

Accompanying report No. 646.

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669.—**Investigations of mineral resources and the mining industry. 1925. 1926. 84p.**

Contents.—(1) *Hot springs in western Canada—their radioactive and chemical properties*; (2) *Natural gas in New Brunswick*, by R. T. Elworthy.—(3) *The building and ornamental stone trade in Great Britain*, by W. A. Parks.—(4) *Notes on zinc and lead in eastern Canada*, by A. H. A. Robinson.—(5) *Lithium-bearing minerals in Canada*, by L. H. Cole and V. L. Eardley-Wilmot.—(6) *The present status of the abrasive industry*, by V. L. Eardley-Wilmot.

Out of print.

Cat. No. M32-669

670.—**Investigations in ore dressing and metallurgy (Testing and Research Laboratories), 1925. 1926. 123p. 4 pls., 9 figs., table.**

Contents.—(1) *General review of investigations*, by W. B. Timm.—*Reports of investigations*: (2) *Ore Dressing and Metallurgical Laboratory*, by C. S. Parsons, R. K. Carnochan, and J. S. Godard;—(3) *Electrochemical and Hydrometallurgical Laboratory*, by R. J. Traill and W. R. McClelland;—(4) *Pyrometallurgical Laboratory*, by H. C. Mabee and A. E. Smaill.—(5) *Report on the work of the Chemical Laboratory*, by H. C. Mabee.—(6) *The concentration of Canadian flake graphite ores*, by C. S. Parsons.—*The ores of western Quebec—their character and metallurgical treatment*, by W. B. Timm.

25¢.

Cat. No. M32-670

671.—**Investigations of fuels and fuel testing (Testing and Research Laboratories), 1925. 1927. 184p. 7 pls., 17 figs., 68 tables.**

Contents.—*General review of investigations*, by B. F. Haanel and R. E. Gilmore.—**Part I:** (1) *Examination of typical cokes* (see separate No. 671-1); (2) *Tests of various fuels* (see separate No. 671-2); (3) *Low temperature carbonization of bituminous coals* (see separate No. 671-3); (4) *Effects of continued weathering upon the friabilities of various fuels*, by J. H. H. Nicolls.—(5) *Analyses of solid fuels* (see separate No. 671-4).—**Part II:** (1) *The examination of lubricating oils after use in automobile engines*, by P. V. Rosewarne; (2) *Gasoline survey for 1925*, by P. V. Rosewarne and H. McD. Chantler; (3) *Analyses of oils and liquid fuels*, by P. V. Rosewarne.—**Part III:** (1) *Distillation of oil shale with circulation of uncondensed gases*, by A. A. Swinnerton.

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10¢.

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- 671-2.—**Tests of various fuels made in a domestic hot-water boiler** at the Fuel Testing Station in co-operation with the Dominion Fuel Board, by E. S. Malloch and C. E. Baltzer. 1927. 33p. Figs., tables.

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- 677.—**Abrasives: products of Canada, technology and application.** Part III: **Garnet**, by V. L. Eardley-Wilmot. 1927. 69p. 4 pls., 19 figs., 6 tables.

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678.—**Les abrasifs: produits du Canada, technologie et applications.** Partie III: Le grenat, par V. L. Eardley-Wilmot. 1931. 73p. 4 planches, 19 figures, 6 tableaux.

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681.—**Gas and oil fields and pipe lines in southwestern Ontario; map**, by R. T. Elworthy. 1926. 12m:1".

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## 687.—Investigations of mineral resources, 1926.—Continued.

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See map No. 692.

Out of print.

Cat. No. M32-691

- 692.—**Diatomite deposits in Maritime Provinces; index map**, by V. L. Eardley-Wilmot. 1927. 17m:1".

Accompanying report No. 691.

Out of print.

Cat. No. M32-692

- 693.—**Mineral map of Canada**. 1929. Revised in 1933 and re-numbered as 702.

See map No. 702.

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Separate part of report No. 696.

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- 696-2.—**Investigations of fuels and fuel testing, 1927. Part II: Liquid fuels**. 1929. Pp. 71-103. Figs., tables.

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Separate part of report No. 696.

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- 697.—**Investigations in ceramics and road materials in 1927.** 1929. 80p. Tables.

**Contents.**—*Introduction by Howells Fréchette.*—**Ceramics:** (1) *Treatment of certain western clays to overcome drying defects, by Howells Fréchette and J. G. Phillips;* (2) *Preliminary report on clay gathering, by J. F. McMahon;*—(3) *Clays and shales of the Grand Lake area, N.B., by Howells Fréchette and J. F. McMahon.*—**Road materials:** (4) *In Prince Edward Island;* (5) *Stone quarries in Quebec;* (6) *The testing of non-bituminous road materials (see report No. 697-1), by R. H. Picher.*

25¢.

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- 697-1.—**The testing of non-bituminous road materials,** by R. H. Picher. 1929. 10p.

Separate part of report No. 697.  
10¢.

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- 698.—**Industrial fuel and power statistics for Ontario, calendar year 1925,** by E. S. Malloch and C. E. Baltzer. 1928. 23p. 12 figs., tables.

Compiled and published with the approval and co-operation of the Dominion Fuel Board and the Dominion Bureau of Statistics.

10¢.

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- 699.—**Abrasives: products of Canada, technology and application. Part IV: Artificial abrasives and manufactured abrasive products and their uses,** by V. L. Eardley-Wilmot. 1929. 144p. 19 pls., 14 figs., 11 tables.

Voir le rapport n° 700 pour l'édition française. See also reports No. 673, 675, and 677.

20¢.

Cat. No. M32-699

- 700.—**Les abrasifs: produits du Canada, technologie et applications. Partie IV: Abrasifs artificiels, produits abrasifs et usages,** par V. L. Eardley-Wilmot. 1934. 153p. 19 planches, 14 figures, 11 tableaux.

See report No. 699 for English edition. Voir aussi les rapports n° 674, 676 et 678.

Édition épuisée.

N° de cat. M32-700F

- 701.—**Mica,** by H. S. Spence. 1929. 142p. 21 pls., 1 chart, 10 figs., 16 tables, 2 maps.

See maps No. 703 and 704.

Out of print.

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- 702.—**Mineral map of the Dominion of Canada.** Revised in 1933. 100m : 1".

Accompanying report No. 738.

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Accompanying report No. 701.

Out of print.

Cat. No. M32-703

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Accompanying report No. 701.

Out of print.

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10¢.

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- 707.—**Chrysotile asbestos in Canada**, by James Gordon Ross. 1931. 146p. 34 pls., 8 figs., 6 charts, 21 tables.

Voir le rapport n° 708 pour l'édition française.

Out of print.

Cat. No. M32-707

- 708.—**Amiante chrysotile au Canada**, par James Gordon Ross. 1934. 162p. 34 planches, 8 figures, 6 graphiques, 21 tableaux.

See report No. 707 for English edition.

Édition épuisée.

N° de cat. M32-708F

- 709.—Not published.

- 710.—**Investigations of mineral resources and the mining industry, 1928. 1930.** 57p. 2 pls., tables.

*Contents.*—Preliminary report on the limestones of northern and western Ontario and the Prairie Provinces, by M. F. Goudge.—Potash salts in the Maritime Provinces of Canada, by L. H. Cole.—Core drilling bituminous sands of northern Alberta, by S. C. Ells (see report No. 710-1).—Preliminary report on moulding sands in eastern Canada, by C. H. Freeman.

25¢.

Cat. No. M32-710

- 710-1.—**Core drilling bituminous sands of northern Alberta**, by S. C. Ells. 1929. 26p. 4 pls., 1 fig., tables.

Advance section of report No. 710.

25¢

Cat. No. M32-710/1

- 711.—**Investigations in ore dressing and metallurgy (Testing and Research Laboratories), 1928. 1930.** 166p. 8 figs., 7 tables.

*Contents.*—(1) General review of investigations, by W. B. Timm.—Reports of investigations: (2) Ore Dressing and Metallurgical Laboratories, by C. S. Parsons, A. K. Anderson, and J. S. Godard;—(3) Non-Metallics Laboratory, by R. K. Carnochan, C. S. Parsons, and R. A. Rogers;—(4) Hydrometallurgical Laboratory, by R. J. Traill, W. R. McClelland, and J. D. Johnston.—Report on the treatment of mixed (bulk) concentrates from base metal sulphide ores, by W. E. Harris.—(5) Report on the work and investigations of the Chemical Laboratories, by H. C. Mabey.—(6) The new Pyrometallurgical Laboratory of the Department of Mines, by W. B. Timm and T. W. Hardy.

50¢.

Cat. No. M32-711

- 712.—**Investigations of fuels and fuel testing (Testing and Research Laboratories), 1928. 1930.** 71p. 2 pls., 4 figs., tables.

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25¢.

Cat. No. M32-712

- 713.—**The Mining Laws of Canada: a digest of Dominion and Provincial laws affecting mining.** Revised edition, by A. Buisson. 1931. 98p.

See also reports No. 627, 795, 828, and 854.

Out of print.

Cat. No. M32-713



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- 714.—The gypsum industry of Canada**, by L. Heber Cole. 1930. 164p. 20 pls., 23 figs., 5 tables, 1 map.  
See map No. 715.  
Out of print. Cat. No. M32-714
- 715.—Gypsum occurrences in Canada; index map**, by L. H. Cole. 1930. 500m : 1".  
Accompanying report No. 714.  
Out of print. Cat. No. M32-715
- 716.—The salt industry of Canada**, by L. Heber Cole. 1930. 116p. 15 pls., 31 figs., 13 tables, 2 maps.  
See maps No. 717 and 718.  
20¢. Cat. No. M32-716
- 717.—Saline springs and salt areas in Canada; index map**, by L. H. Cole. 1930. 500m : 1".  
Accompanying report No. 716.  
Out of print. Cat. No. M32-717
- 718.—Ontario-Michigan salt basin showing probable limit of productive area; map**, by L. H. Cole. 1930. 25m : 1".  
Accompanying report No. 716.  
Out of print. Cat. No. M32-718
- 719.—Investigations of mineral resources and the mining industry, 1929.** 1930. 69p. 5 pls., 7 figs., tables.  
Contents.—(1) The Wilberforce radium occurrence, by H. S. Spence and R. K. Carnochan.—(2) Notes on anhydrite, by L. H. Cole and R. A. Rogers.—(3) Bituminous sands of northern Alberta, operations during 1929, by S. C. Ells.—(4) Limestone in industry, by M. F. Goudge.—(5) Preliminary report on limestone of British Columbia, by M. F. Goudge.  
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- 720.—Investigations in ore dressing and metallurgy (Testing and Research Laboratories), 1929.** 1931. 208p. 1 pl., 3 figs., tables.  
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See report No. 733 for English edition. Voir aussi rapports n° 683 et 758. 30¢.

N° de cat. M32-778F

779.—Analyses of coals and other solid fuels, 1934 to 1936, compiled by J. H. H. Nicolls and C. B. Mohr. 1937. 139p. Tables.

Appendices—(1) Analyses of coals and peats, 1918 to 1925, hitherto unpublished.—(2) Analyses of ash from coals, cokes, peat, and woods. 25¢.

Cat. No. M32-779

780.—Petroleum fuels in Canada, deliveries for consumption, calendar year 1935, by J. M. Casey. 1937. 20p. 1 fig., tables. Issued in co-operation with the Dominion Fuel Board. 10¢.

Cat. No. M32-780

781.—Limestones of Canada; their occurrence and characteristics. Part IV: Ontario, by M. F. Goudge. 1938. 362p. 46 pls., 10 figs., tables, 2 maps.

See maps No. 782 and 783. See also reports No. 682, 733, 742, 755, and 811.

75¢.

Cat. No. M32-781

782.—Distribution of limestone in eastern and central Ontario; map, by M. F. Goudge. 1937. 4400':1".

Accompanying report No. 781.

25¢.

Cat. No. M32-782

783.—Distribution of limestone in southwestern Ontario; map, by M. F. Goudge. 1937. 4400':1".

Accompanying report No. 781.

25¢.

Cat. No. M32-783

784.—Not published.

785.—Investigations in ore dressing and metallurgy (Testing and Research Laboratories), January to June, 1937, by C. S. Parsons and associates. 1938. 158p. Tables.

Contents.—Review of investigations, by C. S. Parsons.—Investigations No. 704-716 the results of which are recorded in detail.—Investigations the results of which are synopsized.

50¢.

Cat. No. M32-785

786.—The Canadian mineral industry in 1936. 1937. 78p. Graphs.

Out of print.

Cat. No. M32-786

787.—Gasoline surveys for 1935 and 1936, by P. V. Rosewarne and H. McD. Chantler. 1937. 40p. 2 figs., 11 tables.

25¢.

Cat. No. M32-787

## Reports and maps—Rapports.—Continued—Suite.

- 788.—**Investigations in ore dressing and metallurgy** (Testing and Research Laboratories), **July to December, 1937**, by C. S. Parsons and associates, 1938. 137p. 3 pls., tables.

*Contents.*—Review of investigations, by C. S. Parsons.—Investigations No. 717-731 the results of which are recorded in detail.—Investigations the details of which are not published.—A résumé of special research completed, in progress, or under consideration.  
50¢.

Cat. No. M32-788

- 789.—**Petroleum fuels in Canada, deliveries for consumption, calendar year 1936**, by J. M. Casey. 1938. 20p. 1 fig., 16 tables.

Issued in co-operation with the Dominion Fuel Board.

10¢.

Cat. No. M32-789

- 790.—**Comparative pulverized fuel boiler tests on British Columbia and Alberta coals, and on Ontario lignite**, by C. E. Baltzer and E. S. Malloch. 1938. 54p. 1 pl., 2 figs., tables.

25¢.

Cat. No. M32-790

- 791.—**The Canadian mineral industry in 1937**. 1938. 99p. pls., graphs, tables.

On cover: The Mineral Industry of Canada. 1937.

25¢.

Cat. No. M32-791

- 792.—**Investigations in ore dressing and metallurgy** (Testing and Research Laboratories), **January to June, 1938**, by C. S. Parsons and associates. 1939. 147p. 1 pl., 2 figs., tables.

*Contents.*—Review of investigations, by C. S. Parsons.—Investigations No. 732-747 the results of which are recorded in detail.—Investigations the details of which are not published.—Résumé of special investigations and research completed, in progress, or under consideration.

50¢.

Cat. No. M32-792

- 793.—**Improving the properties of clays and shales**, by J. G. Phillips. 1938. 39p. 3 pls., 16 figs., 6 tables.

25¢.

Cat. No. M32-793

- 794.—**Petroleum fuels in Canada, deliveries for consumption, calendar year 1937**, by J. M. Casey. 1939. 20p. 1 fig., 16 tables.

Issued in co-operation with the Dominion Fuel Board.

10¢.

Cat. No. M32-794

- 795.—**The mining laws of Canada: a digest of Dominion and Provincial laws affecting mining**, compiled by A. Buisson. 3rd revised edition. 1939. 110p.

See also reports No. 627, 713, 828, and 854.

Out of print.

Cat. No. M32-795

- 796.—**Gasoline surveys for 1937 and 1938**, by P. V. Rosewarne and H. McD. Chantler. 1939. 20p. 2 figs., 8 tables.

10¢.

Cat. No. M32-796

- 797.—**Investigations in ore dressing and metallurgy** (Testing and Research Laboratories), **July to December, 1938**, by C. S. Parsons and associates. 1940. 131p. 2 figs., tables.

*Contents.*—Review of investigations, by C. S. Parsons.—Investigations No. 748-761 the results of which are recorded in detail.—Investigations the details of which are not published.—Résumé of special investigations and research completed, in progress, or under consideration.

50¢.

Cat. No. M32-797

# MINES BRANCH PUBLICATIONS

## Reports and maps—Rapports.—Continued—Suite.

- 798.—Tests on the liquefaction of Canadian coals by hydrogenation, by T. E. Warren and K. W. Bowles. 1940. 106p. 4 pls., 3 figs., 6 tables.  
25¢. Cat. No. M32-798
- 799.—Mineral map of the Dominion of Canada. 1939. 100m:1".  
Out of print. Cat. No. M32-799
- 800.—Stabilized roads, by R. H. Picher. 1940. 37p. 3 pls., 1 fig.  
Voir le rapport n° 801 pour l'édition française.  
25¢. Cat. No. M32-800
- 801.—La stabilisation des routes, par R. H. Picher. 1940. 45p.  
3 planches, graphique.  
See report No. 800 for English edition.  
25¢. N° de cat. M32-801F
- 802.—Comparative tests of various fuels when burned in a domestic hot-water boiler, 1935 to 1938, by C. E. Baltzer and E. S. Malloch. 1940. 23p. 1 pl., 3 figs., tables.  
25¢. Cat. No. M32-802
- 803.—Talc, steatite, and soapstone; pyrophyllite, by Hugh S. Spence. 1940. 146p. 8 pls., 4 figs., tables.  
50¢. Cat. No. M32-803
- 804.—The Canadian mineral industry in 1938. 1939. 101p. Graphs.  
Out of print. Cat. No. M32-804
- 805.—Investigations in ore dressing and metallurgy (Testing and Research Laboratories), January to June, 1939, by C. S. Parsons and associates. 1940. 195p. 1 pl., 5 figs.  
Contents.—Review of investigations, by C. S. Parsons.—Investigations No. 762-774 the results of which are recorded in detail.—Investigations the details of which are not published.—The activities of the chemical, mineralogical, physical testing and heat-treating laboratories, the analyses and tests made, including miscellaneous items, tests, and sampling jobs.—Résumé of special investigations and research completed, in progress, or under consideration.  
50¢. Cat. No. M32-805
- 806.—Investigations in ore dressing and metallurgy (Testing and Research Laboratories), July to December, 1939, by C. S. Parsons and associates. 1941. 116p. 2 pls.  
Contents.—Review of investigations, by C. S. Parsons.—Investigations No. 775-787 the results of which are recorded in detail.—Investigations the details of which are not published.—Reports on the activities of the chemical, mineralogical, physical testing and heat-treating laboratories.—A résumé of special investigations and research completed, in progress, or under consideration.  
25¢. Cat. No. M32-806
- 807.—Industrial waters of Canada; report on investigations, 1934 to 1940, by Harald A. Leverin. 1942. 112p. 4 figs., 6 tables.  
25¢. Cat. No. M32-807
- 808.—Petroleum fuels in Canada, deliveries for consumption, calendar years 1927-1940, by J. M. Casey. 1942. 31p. 32 tables.  
10¢. Cat. No. M32-808
- 809.—Peat moss or sphagnum moss; its uses in agriculture, in industry, and in the home, by Harald A. Leverin. 1943. 10p.  
Voir le rapport n° 810 pour l'édition française.  
10¢. Cat. No. M32-809



**Reports and maps—Rapports.—Continued—Suite.**

- 810.—**Tourbe de mousse ou mousse de sphaigne; ses usages en agriculture, dans l'industrie et au foyer**, par Harald A. Leverin. 1943. 12p.

See report No. 809 for English edition.

10¢.

N° de cat. M32-810F

- 811.—**Limestones of Canada; their occurrence and characteristics. Part V: Western Canada**, by M. F. Goudge. 1946. 233p. 40 pls., 6 figs., 12 tables, 2 maps.

See maps No. 812 and 813. See also reports No. 682, 733, 742, 755, and 781.

50¢.

Cat. No. M32-811

- 812.—**Southern British Columbia and southeastern Alberta; map showing distribution of limestone and location of quarries**, by M. F. Goudge. 1945. 24m:1".

Accompanying report No. 811.

Out of print.

Cat. No. M32-812

- 813.—**Central and southern Manitoba; map showing distribution of limestone and location of quarries**, by M. F. Goudge. 1945. 20m:1".

Accompanying report No. 811.

Out of print.

Cat. No. M32-813

- 814.—**Petroleum fuels in Canada, deliveries for consumption, calendar years 1940-1944**, by J. M. Casey. 1945. 25p. Tables. 10¢.

Cat. No. M32-814

- 815.—**The Canadian mineral industry in 1944**. 1945. 102p.

Out of print.

Cat. No. M32-815

- 816.—**The physical properties of Canadian building brick**, by J. G. Phillips. 1947. 102p. 4 pls., 18 tables, 3 graphs. Bilingual. 25¢.

Cat. No. M32-816

- 816.—**Les propriétés physiques de la brique canadienne de construction**, par J. G. Phillips. 1947. 102p. 4 planches, 18 tableaux, 3 graphiques. Bilingue. 25¢.

N° de cat. M32-816

- 817.—**Peat moss deposits in Canada**, by Harald A. Leverin. 1946. 102p. 9 pls., 10 figs.

Voir le rapport n° 821 pour l'édition française.

25¢.

Cat. No. M32-817

- 818.—**Catalogue and index of Bureau of Mines reports**. 17th edition. 1946. 66p.

Out of print.

Cat. No. M32-818

- 819.—**Industrial waters of Canada; report of investigations, 1934 to 1943**, by Harald A. Leverin. Revised edition, 1947. 109p. 4 figs., 6 tables.

See also report No. 807.

Out of print.

Cat. No. M32-819

- 820.—**The Canadian mineral industry in 1945**. 1946. 103p. Tables. 25¢.

Cat. No. M32-820

# MINES BRANCH PUBLICATIONS

## Reports and maps—Rapports.—Continued—Suite.

821.—**Les dépôts de tourbe de mousse au Canada**, par Harald A. Leverin. 1947. 115p. 9 planches, 10 figures, tableaux.

See report No. 817 for English edition.

25¢.

N° de cat. M32-821F

822.—**The physical properties of Canadian structural tile**, (made from clay or shale), by J. G. Phillips and G. A. Kirkendale. 1947. 12p. 4 pls., 2 graphs, 4 tables.

Voir le rapport n° 823 pour l'édition française.

10¢.

Cat. No. M32-822

823.—**Les propriétés physiques de la tuile canadienne de construction** (faite d'argile ou de schiste), par J. G. Phillips et G. A. Kirkendale. 1947. 12p. 7 planches, 2 graphiques, 4 tableaux.

See report No. 822 for English edition.

10¢.

N° de cat. M32-823F

824.—**The Canadian mineral industry in 1946**. 1948. 137p. Tables.

25¢.

Cat. No. M32-824

825.—**Summary of investigations on New Brunswick oil shales**, conducted by the Mines and Geology Branch, under Agreement (1942), with the Province of New Brunswick. 1948. 24p. 5 pls., 5 maps in pocket.

15¢.

Cat. No. M32-825

826.—**Drilling and sampling of bituminous sands of northern Alberta**. Results of investigations 1942-1947. 1949.

Vol. 1.—Results of investigations. 39p. 3 pls., 2 figs., tables.

25¢.

Cat. No. M32-826/1

Vol. 2.—Detailed drilling and sampling records. 670p.

\$5.00

Cat. No. M32-826/2

Vol. 3.—Cross-sections and plans of areas drilled. 79p.

Out of print.

Cat. No. M32-826/3

827.—**The Canadian mineral industry in 1947**. 1949. 134p. Tables.

25¢.

Cat. No. M32-827

828.—**The mining laws of Canada**, a digest of Dominion and Provincial laws and regulations affecting mining, by A. Buisson. 4th edition. 1950. 133p.

See also reports No. 627, 713, 795, 854.

50¢.

Cat. No. M32-828

829.—**The Canadian mineral industry in 1948**. 1950. 126p. Tables.

25¢.

Cat. No. M32-829

830.—**The Canadian mineral industry in 1949**. 1951. 128p. Tables.

25¢.

Cat. No. M32-830

831.—**Analyses of Canadian coals and peat fuels**, with appendix containing supplementary coal ash chemical analyses, by J. H. H. Nicolls. 1952. 409p. Tables.

50¢.

Cat. No. M32-831

832.—**Analyses of Canadian crude oils**, by H. McD. Chantler, P. B. Seely, and F. E. Goodspeed. 1951. 90p. Tables.

50¢.

Cat. No. M32-832

**Reports and maps—Rapports.—Continued—Suite.**

**833.—Industrial water resources of Canada.** Water survey report series.

No. 1.—**Scope, procedure, and interpretation of survey studies,** by J. F. J. Thomas. 1953. 69p. 5 figs., 11 tables.

75¢.

Cat. No. M32-833

**834.—Industrial water resources of Canada.** Water survey report series.

No. 2.—**Ottawa River drainage basin, 1947-48,** by J. F. J. Thomas. 1952. 144p. 5 graphs, 12 tables, 2 maps (not numbered).

75¢.

Cat. No. M32-834

**835.—The Canadian mineral industry in 1950.** 1953. 148p. Tables.

Voir le rapport n° 840 pour l'édition française.

25¢.

Cat. No. M32-835

**836.—Analysis directory of Canadian coals,** by E. Swartzman. 2nd edition (1953). 1954. 204p. Charts, tables, 6 maps (not numbered).

See also reports No. 831 and 850.

\$2.50

Cat. No. M32-836

**837.—Industrial water resources of Canada.** Water survey report series.

No. 3.—**Upper St. Lawrence river-Central Great Lakes drainage basin in Canada,** by J. F. J. Thomas. 1954. 212p. 9 figs., 7 tables, 2 maps (not numbered).

\$1.50

Cat. No. M32-837

**838.—Industrial water resources of Canada.** Water survey report series.

No. 4.—**Columbia river drainage basin in Canada, 1949-50,** by J. F. J. Thomas. 1953. 80p. 5 figs., 6 tables, 2 maps (not numbered).

75¢.

Cat. No. M32-838

**839.—Industrial water resources of Canada.** Water survey report series.

No. 5.—**Skeena river drainage basin, Vancouver Island, and coastal areas of British Columbia, 1949-51,** by J. F. J. Thomas. 1953. 53p. 4 figs., 5 tables, 1 map (not numbered).

75¢.

Cat. No. M32-839

**840.—L'industrie minière du Canada en 1950.** 1953. 181p. Tableaux.

See report No. 835 for English edition.

25¢.

N° de cat. M32-840F

**841.—The Canadian mineral industry in 1951.** 1953. 170p. Tables.

Voir le rapport n° 843 pour l'édition française.

50¢.

Cat. No. M32-841



# MINES BRANCH PUBLICATIONS

## Reports and maps—Rapports.—Continued—Suite.

842.—Industrial water resources of Canada. Water survey report series.

No. 6.—Fraser river drainage basin, 1950-51, by J. F. J. Thomas. 1954. 91p. 4 figs., 5 tables, 2 maps (not numbered).

75¢.

Cat. No. M32-842

843.—L'industrie minière du Canada en 1951. 1954. 203p. Tableaux.

See report No. 841 for English edition.

50¢.

N° de cat. M32-843F

844.—The Canadian mineral industry in 1952. 1954. 198p. Tables.

Voir le rapport n° 845 pour l'édition française.

\$1

Cat. No. M32-844

845.—L'industrie minière du Canada en 1952. 1955. 210p. Tableaux.

See report No. 844 for English edition.

\$1

N° de cat. M32-845F

846.—The granite industry of Canada, by G. F. Carr. 1955. 191p. 18 colored plates, 42 figs., tables, 7 maps.

Voir le rapport n° 852 pour l'édition française.

\$3.50

Cat. No. M32-846

847.—Cobalt in Canada, by R. J. Jones. 1954. 96p. 31 figs., 19 tables.

\$1.50

Cat. No. M32-847

848.—The spectrum of steel; a table for the selection of homologous spectral lines, by John Convey and J. K. Hurwitz. 1954. 55p.

\$1

Cat. No. M32-848

849.—Industrial water resources of Canada. Water survey report series.

No. 7.—Saskatchewan river drainage basin, 1951-52, by J. F. J. Thomas. 1956. 154p. 6 figs., 5 tables, 2 maps.

75¢.

Cat. No. M32-849

850.—Analysis directory of Canadian coals, second edition (1953); Supplement No. 1 (1955), by E. Swartzman and T. E. Tibbets. 1956. 81p. Tables.

See also report No. 836.

75¢.

Cat. No. M32-850

851.—The Canadian mineral industry, 1953. 1955. 232p. Tables.

Voir le rapport n° 853 pour l'édition française.

\$1

Cat. No. M32-851

852.—L'industrie du granit au Canada par G. E. Carr. 1957. 200p. Ill., tableaux, cartes.

See report No. 846 for English edition.

\$3.50

N° de cat. M32-852F

853.—L'industrie minière du Canada en 1953. 1956. 277p. Tableaux.

See report No. 851 for English edition.

\$1

N° de cat. M32-853F

**Reports and maps—Rapports.—Continued—Suite.**

- 854.—**Digest of the mining laws of Canada**, 5th edition, by H. A. Graves and G. R. L. Potter. 1957. 148p.

*It is most important to bear in mind that this publication is a digest only, and is intended merely as a general guide to the mining laws and regulations in effect at the time the text was prepared. In case of doubt or difficulty, reference should be made to the text of the various acts and regulations, as amended from time to time.*

\$1

Cat. No. M32-854

- 855.—**Industrial minerals of Newfoundland**, by G. F. Carr. 1958. 158p. Illus., tables, maps.

\$2

Cat. No. M32-855

- 856.—**Industrial water resources of Canada**. Water survey report series. 29cm.

No. 8.—**Mackenzie river and Yukon river drainage basins in Canada, 1952-53**, by J. F. J. Thomas. 1957. 78p. Tables, graphs, maps (1 folded in pocket).

\$1

Cat. No. M32-856

- 857.—**Canadian mineral industry, 1954**. 1956. 254p. Tables.

*This volume contains reviews on the metals and minerals produced in Canada in 1954. Production statistics for 1954 are preliminary, those for 1953 being final.*

\$1

Cat. No. M32-857

- 858.—**Industrial water resources of Canada**. Water survey report series. 29cm.

No. 9.—**Churchill River and Mississippi River drainage basins in Canada, 1952-54**, by J. F. J. Thomas. 1958. 53p. Tables, graphs, maps (1 folded in pocket).

50¢.

Cat. No. M32-858

- 859.—**L'industrie minière du Canada en 1954**. 1957. 337p. Tableaux.

See report No. 857 for English edition.

\$1

N° de cat. M32-859F

- 860.—**Minerals, Canada and the world**. 1957. Maps, charts, graphs. 23cm.

*This publication is a graphic presentation of the Canadian mineral industry in relation to the world mineral industry. It deals with 35 metals, non-metals and mineral fuels, and employs nearly 120 coloured world maps, Canada maps, bar charts, and line graphs to illustrate mineral production and trade.*

Out of print.

Cat. No. M32-860

- 860S.—**Statistical supplement to Minerals, Canada and the world**. 114p. Tables. 23cm. Processed.

*This booklet contains in tabular form the basic statistical data from which the maps, graphs and charts of "Minerals—Canada and the world" were prepared.*

50¢.

Cat. No. M32-860S

## MINES BRANCH PUBLICATIONS

### Reports and maps—Rapports.—Continued—Suite.

861.—Industrial water resources of Canada. Water survey report series. 29cm.

No. 10.—Nelson river drainage basin in Canada, 1953-56, by J. F. J. Thomas. 1959. 147p. Tables, graphs, maps (1 folded in pocket).

\$1

Cat. No. M32-861

862.—Canadian mineral industry, final edition 1955. 1959. 278p.

*This volume contains reviews of the metals and minerals produced in Canada on a commercial scale during 1955, as well as a few others, which, while not produced in Canada, are nevertheless important to industry.*

\$1

Cat. No. M32-862

863.—Industrie minière du Canada en 1955. 1959. 387p. Tableaux.

*Le présent volume se compose d'exposés sommaires sur les métaux et les minéraux que le Canada a produits sur un pied commercial en 1955, ainsi que sur certains autres qui ne sont pas de production canadienne, mais qui n'en ont pas moins leur importance dans l'industrie. A moins d'indication contraire, les données statistiques sont définitives.*

\$1

N° de cat. M32-863F

864.—Industrial water resources of Canada. Water survey report series. 29cm.

No. 11.—Atlantic Provinces, and Saint John River drainage basins in Canada, 1954-56, by J. F. J. Thomas. 1960. 158p. Tables, graphs, maps (1 folded in pocket).

\$1.25

Cat. No. M32-864

865.—Industrial water resources of Canada. Water survey report series. 29cm.

No. 12.—Water quality at some Canadian military establishments, 1956/57, by J. F. J. Thomas. 1959. 125p. Tables.

\$1.25

Cat. No. M32-865

*Note: No. 865 ends the Report Series. Further publications of this nature are called Monographs and commence with No. 866.*



## Appendix — Appendice

## BULLETINS

**Bulletin Series**, also issued and listed within the "Report and Map Series" of the Mines Branch. Nos. 1-33. 1909-1921.

**Bulletins**, série de rapports publiés entre 1909 et 1921 dans la série générale de la Direction des mines. Les Bulletins traduits en français sont indiqués dans le tableau qui suit.

## NOTE

*The following table is a cross-reference to the numbers used for the Report and Map Series where the complete bibliographical information is given.*

*Le tableau suivant donne la référence au numéro où on trouvera la description détaillée de la publication dans la série de rapport de la Direction des mines.*

Bulletin No. — N <sup>o</sup>	Report No. Rapport n <sup>o</sup>	Title — Titre
1	30	Investigation of the peat bogs...1908-09.
2	67	Iron ore deposits of the Bristol Mine.
2F	314	Gisements de minerais de fer de la mine Bristol.
3	68	Recent advances in the construction of electric furnaces.
3F	263	Progrès récents dans la construction des fours électriques.
4	71	Investigation of the peat bogs...1909-10.
5	82	Magnetic concentration experiments.
6	111	Diamond drilling at Point Mamainse.
7	110	Western portion of Torbrook iron ore deposits.
8	151	Investigation of the peat bogs...1910-11.
8F	180	Recherches sur les tourbières...1910-11.
9	266	Investigation of the peat bogs...1911-12.
9F	267	Recherches sur les tourbières...1911-1912.
10	336	Notes on clay deposits near McMurray.
11	351	Investigation of the peat bogs...1913-14.
11F	352	Recherches sur les tourbières...1913-1914.
12	385	Investigation of a reported discovery of phosphate at Banff.
12F	386	Recherches sur un gisement de phosphate signalé dans l'Alberta.

# MINES BRANCH PUBLICATIONS

## Bulletin Series—Bulletins—Continued—Suite.

Bulletin No.—N <sup>o</sup>	Report No. Rapport n <sup>o</sup>	Title—Titre
13	406	Description of the laboratories of the Mines Branch.
14	430	Coal-fields and coal industry of Eastern Canada.
15	432	The mining of thin-coal seams.
16	435	Mineral springs of Canada; part 1.
17	447	Value of peat fuel for the generation of steam. Not published.
19	466	Test of some Canadian sandstones.
20	472	Mineral springs of Canada; part 2.
21	476	Occurrence and testing of foundry moulding sands.
22	479	Analysis of Canadian fuels, part I.
23	480	Analysis of Canadian fuels, part II.
24	481	Analysis of Canadian fuels, part III.
25	482	Analysis of Canadian fuels, part IV.
26	483	Analysis of Canadian fuels, part V.
27	496	Results of forty-one steaming tests.
28	502	The economic use of coal for steam-raising and house-heating.
29	507	Potash recovery at cement plants.
30	519	Smelter-treatment rates.
31	522	Report on some sources of helium in the British Empire.
32	530	Report on road materials along the St. Lawrence River.
33	565	Gas producer trials with Alberta coals.

## MEMORANDUM SERIES

### **Mines Branch Memorandum Series. No. 1-137, 1921-1958.**

*Note.*—The following reports and articles have been issued in mimeograph or processed form. Few of those are preliminary reports of investigations made by the Mines Branch which were printed in their final form in the Reports Series. In each case the reference to the Reports Series is given. The Memorandum Series was commenced in 1921 to make reports of general interest available to the public. Since 1952 it has been restricted mainly to surveys of mineral resources.

### **Mémoires de la Direction des mines. N° 1-137, 1921-1958.**

*Note.*—Quelques mémoires de la Direction des mines ont été publiés en français. Dans la liste complète qui suit, les mémoires en anglais ou en français figurent sous leur numéro de série respectif et la référence à l'édition correspondante dans l'autre langue est donnée dans chaque cas.

- 1.—**Alkali deposits of Western Canada**, by L. H. Cole. January, 1921. 5p. Tables.  
See Reports Nos. 586 and 588.  
Out of print. Cat. No. M33-1
- 2.—**Oil shales of Manitoba and Saskatchewan** (preliminary statement), by S. C. Ells. November, 1921. 1p.  
See Reports Nos. 586 and 588.  
25¢. Cat. No. M33-2
- 3.—**Cretaceous shales of Manitoba and Saskatchewan**, their economic value as a possible source of crude petroleum, by S. C. Ells. December, 1921. 10p. 2 maps.  
See Reports Nos. 586 and 588.  
Out of print. Cat. No. M33-3
- 4.—**A new source of soapstone in Ontario** (preliminary statement), by H. S. Spence. April, 1922. 4p.  
See Reports Nos. 605 and 607.  
Out of print. Cat. No. M33-4
- 5.—**Pottery clays in Canada**, by J. Keele. May, 1922. 8p. (with an amending sheet, dated April 21, 1934.)  
Out of print. Cat. No. M33-5
- 6.—**Investigation of a British market for Canadian non-metallic minerals**, by Hugh S. Spence. December, 1922. 8p.  
Out of print. Cat. No. M33-6
- 7.—**Directory of Belgian buyers of metals and minerals**. 1922. 2p.  
Out of print. Cat. No. M33-7
- 8.—**Directory of British buyers of metals and minerals**. 1922. 10p.  
Out of print. Cat. No. M33-8



## MINES BRANCH PUBLICATIONS

### Memorandum Series—Mémoires.—Continued—Suite.

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- 122.—Preliminary report on coated lightweight concrete aggregate from Canadian clays and shales: Part IV, New Brunswick, Nova Scotia, and Prince Edward Island, by J. G. Matthews. August, 1952. 47p. Figures, map.

Prepared in the Division of Industrial Minerals.

50¢.

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Prepared in the Division of Radioactivity.

50¢.

Cat. No. M33-123

- 124.—Gasoline survey for summer, 1952, by H. McD. Chantler, P. B. Seely and R. G. Draper. October, 1952. 12p. Tables, graphs.

Prepared in the Division of Fuels.

25¢.

Cat. No. M33-124

- 125.—Tin in Canada: Occurrences and uses, by W. R. McClelland. 1952. 18p. Tables, map.

Prepared in the Division of Mineral Resources.

25¢.

Cat. No. M33-125

- 126.—Preliminary report on coated lightweight concrete aggregate from Canadian clays and shales: Part V, Quebec, by H. S. Wilson. August, 1953. 36p. Figures, map.

Prepared in the Division of Industrial Minerals.

50¢.

Cat. No. M33-126

- 126F.—Rapport préliminaire traitant d'un agrégat enrobé et léger à béton, fait d'argiles et de schistes canadiens: Partie V, Québec, par H. S. Wilson. 1954. 40p. 4 figures, 1 carte.

Préparé par le Service des minéraux industriels.

50¢.

N° de cat. M33-126F

- 127.—Preparation and burning of peat as a domestic fuel, by H. P. Hudson and T. R. Skerry. 1954. 19p. Illus., table, graphs.

Prepared in the Division of Fuels.

25¢.

Cat. No. M33-127

- 128.—Preliminary report on coated lightweight concrete aggregate from Canadian clays and shales: Part VI, British Columbia, by H. S. Wilson. October, 1954. 42p. Figures, map.

Prepared in the Division of Industrial Minerals.

50¢.

Cat. No. M33-128

- 129.—Durability of aggregates in concrete mixes (final report), by R. H. Picher. 1954. 66p. Tables.

Prepared in the Division of Industrial Minerals.

50¢.

Cat. No. M33-129

- 130.—Nickel in Canada, with a survey of world conditions, by W. R. McClelland. 1955. 53p. Figures, tables, maps.

Prepared in the Division of Mineral Resources.

50¢.

Cat. No. M33-130

- 131.—Gasoline survey for summer, 1955, by P. B. Seely, A. Yates and R. G. Draper. 1956. 15p. Tables, graphs.

Prepared in the Division of Fuels.

25¢.

Cat. No. M33-131

**Memorandum Series—Mémoires.—Continued—Suite.**

- 132.—Interim report on hardness of major Canadian water supplies, by J. F. J. Thomas. 1956. 18p. Tables.

Prepared in the Division of Industrial Minerals.

25¢.

Cat. No. M33-132

- 133.—Power and population: Canada's present electricity requirements and the long-term outlook, by C. E. Baltzer and John Convey. 1956. 25p. Illus., maps.

Prepared in the Division of Fuels.

Voir le mémoire n° 133F pour l'édition française.

10¢.

Cat. No. M33-133

- 133.—Énergie et population; besoins présents du Canada en matière d'électricité, perspectives d'avenir, par C. E. Baltzer et John Convey. Ottawa, 1957. 29p. Ill., cartes. Polycopié.

Préparé par le Service des combustibles.

See Memorandum No. 133 for English edition.

10¢.

N° de cat. M33-133F

- 134.—Canadian Silica Industry, by R. K. Collings. Ottawa, 1956. 22p. Tables. Processed.

Prepared in the Division of Industrial Minerals.

25¢.

Cat. No. M33-134

- 135.—Columbium (niobium) and tantalum, by R. J. Jones. Ottawa, 1957. 56p. Illus., tables, maps.

Prepared in the Mineral Resources Division.

50¢.

Cat. No. M33-135

- 136.—Fifty years of fuel testing and research, by A. A. Swinnerton. Ottawa, 1957. 15p. Illus. Processed.

Prepared in the Fuels Division.

25¢.

Cat. No. M33-136

- 137.—Zinc in Canada with comments on world conditions, by R. E. Neelands and D. B. Fraser. Ottawa, 1958. 87p. Figs., tables, maps.

Prepared in Mineral Resources Division.

50¢.

Cat. No. M33-137

*Note.—No. 137 ends the Memorandum Series. Further publications of this nature are issued by the Mineral Resources Division as Mineral Surveys.*



## TECHNICAL PAPERS

### Mines Branch Technical Papers. No. 1-17, 1953-1957.

*This series was begun in 1953 and is restricted to reports on the methods and results of research carried out in Mines Branch laboratories. Prior to 1953, many of such reports were published in the Memorandum Series. They are reproduced by offset processes.*

- 1.—The determination of thorium in ores by the column method, by R. J. Guest. 1953. 24p. Figs., tables.

Prepared in the Radioactivity Division.

25¢.

Cat. No. M34-1

- 2.—The constitution of bone china; Part I: High temperature phase equilibrium studies in the system tricalcium phosphate-alumina-silica, by P. D. S. St. Pierre. 1953. 107p. Illus., tables.

Prepared in the Mineral Dressing and Process Metallurgy Division.

50¢.

Cat. No. M34-2

- 3.—The colorimetric determination of copper with 2,2-diquinolyl in minerals and ores, by R. J. Guest. 1953. 18p. Tables, graphs.

Prepared in the Radioactivity Division.

25¢.

Cat. No. M34-3

- 4.—The determination of aluminum by the fluorophotometric method, by J. B. Zimmerman. 1953. 12p. Table, graphs.

Prepared in the Radioactivity Division.

25¢.

Cat. No. M34-4

- 5.—Effect of germanium on the transformation of white to grey tin at comparatively low temperature, by R. R. Rogers and J. F. Fydel. 1953. 11p. Illus., tables.

Prepared in the Mineral Dressing and Process Metallurgy Division.

25¢.

Cat. No. M34-5

- 6.—The determination of uranium in concentrates by the fluorophotometric method, by J. B. Zimmerman, F. T. Rabbitts, and E. D. Kornelsen. 1953. 9p. Illus., tables.

Prepared in the Radioactivity Division.

25¢.

Cat. No. M34-6

- 7.—The constitution of bone china; Part II: Reactions in bone china bodies, by P. D. S. St. Pierre. 1954. 20p. Figs., tables.

Prepared in the Mineral Dressing and Process Metallurgy Division.

25¢.

Cat. No. M34-7

- 8.—The determination of uranium in uranium concentrates using ethyl acetate, by R. J. Guest and J. B. Zimmerman. 1954. 19p. Tables, graphs.

Prepared in the Radioactivity Division.

25¢.

Cat. No. M34-8

**Technical Papers.—Continued.**

- 9.—**Electrode potentials and the dissolution of gold**, by G. Thomas. 1954. 14p. Figs.  
Prepared in the Mineral Dressing and Process Metallurgy Division.  
25¢ Cat. No. M34-9
  
- 10.—**Electronic concentration of low grade ores with the Lapointe Picker**, by A. H. Bettens and C. M. Lapointe. 1955. 13p. Illus., tables.  
Prepared in the Radioactivity Division.  
25¢. Cat. No. M34-10
  
- 11.—**Refining antimony by electrode position and by distillation**, by R. R. Rogers and R. A. Campbell. 1955. 14p. Illus., tables.  
Prepared in the Mineral Dressing and Process Metallurgy Division.  
25¢. Cat. No. M34-11
  
- 12.—**The constitution of bone china; Part III: High temperature phase equilibrium studies in the system tricalcium phosphate-anorthite-silica**, by P. D. S. St. Pierre. 1955. 19p. Figs., tables.  
Prepared in the Mineral Dressing and Process Metallurgy Division.  
25¢. Cat. No. M34-12
  
- 13.—**Development of the Port Radium leaching process for recovery of uranium**. 1955. Reprint 1956. 22p. Tables, charts. 25cm. Processed.  
Prepared in the Radioactivity Division.  
25¢. Cat. No. M34-13
  
- 14.—**Measurement of thorium in ores by the thorium emanation method**, by J. B. Zimmerman and J. A. F. Bouvier. 1955. 21p. Illus., tables, graphs.  
Prepared in the Radioactivity Division.  
25¢. Cat. No. M34-14
  
- 15.—**Studies on the precipitation of sodium polyuranates from solutions of sodium uranyl tricarbonate**, by H. J. Herbst. 1956. 29p. Tables, charts.  
Prepared in the Radioactivity Division.  
25¢. Cat. No. M34-15
  
- 16.—**Master sieves at the Mines Branch for standardization of the sieves of the mining industry**, by J. Brannen and L. E. Djingheuzian. 1956. 36p. Tables.  
Prepared in the Mineral Dressing and Process Metallurgy Division.  
25¢. Cat. No. M34-16
  
- 17.—**Cyclone atomizer for briquet binder**, by J. Visman. 1957. 14p. Illus., tables, charts. 25cm.  
Prepared in the Division of Fuels.  
25¢. Cat. No. M34-17

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**Note.**—No. 17 ends the Technical Paper Series. Further publications of this nature are issued by the Mines Branch as Research Reports.

# LIST OF OPERATORS OF MINES, MILLS AND METALLURGICAL WORKS

List No.	Title	Price	Cat. No.
1-1	<b>Metallurgical works in Canada</b>		
	Part I: Primary iron and steel. Annual.	.25	M36-1011
	Part II: Non-ferrous and precious metals. Annual. ....	.25	M36-1012
1-2	<b>Milling plants in Canada</b>		
	Part I: Metallic ores. Annual. ....	.25	M36-1021
	Part II: Industrial minerals. Annual.	.25	M36-1022
2-1	<b>Metal and industrial mineral mines in Canada. Annual. ....</b>	.25	M36-2010
	<i>Note: Supersedes the following lists:</i>		
2-1	Gold Mines in Canada. 1948 .....	o.p.	M36-2011
2-2	Cobalt-silver mines in Canada. 1954 .....	o.p.	M36-2020
2-3	Copper, copper-nickel, copper-zinc mines in Canada. 1948 .....	o.p.	M36-2030
2-4	Silver-lead-zinc mines in Canada. 1948 ....	o.p.	M36-2040
2-5	Iron mines in Canada. 1943 .....	o.p.	M36-2050
2-6	Molybdenum, antimony, tungsten mines in Canada. 1948 .....	o.p.	M36-2060
2-7	Molybdenum deposits. 1943 .....	o.p.	M36-2070
3-1	Abrasives in Canada. 1929 .....	o.p.	M36-3010
3-2	Asbestos mines in Canada. 1930 .....	o.p.	M36-3020
3-3	Feldspar mines in Canada. 1939 .....	o.p.	M36-3030
3-4	Graphite mines in Canada. 1929 .....	o.p.	M36-3040
3-5	Gypsum mines in Canada. 1950 .....	o.p.	M36-3050
3-6	Magnesium sulphate (epsomite), sodium carbonate, and sodium sulphate (Glauber's salt) operators in Canada. 1929 .....	o.p.	M36-3060
3-7	Operators of mica properties. 1942 .....	o.p.	M36-3070
3-8	Producers of mineral pigments in Canada. 1929 .....	o.p.	M36-3080
3-9	Quartz (silica) mines in Canada. 1930 ....	o.p.	M36-3090
3-10	Salt wells and mines in Canada. 1930 .....	o.p.	M36-3100
3-11	Talc and soapstone mines in Canada. 1930 ..	o.p.	M36-3110
3-12	Miscellaneous non-metals. 1928 .....	o.p.	M36-3120
3-13	Fluorspar mines in Canada. 1943 .....	o.p.	M36-3130



# PUBLICATIONS DE LA DIRECTION DES MINES

## Lists of Operators—Continued.

List No.	Title	Price	Cat. No.
4-1	<b>Coal mines in Canada. Annual. ....</b>	<b>.25</b>	<b>M36-4010</b>
4-2	<b>Producers of coke in Canada. 1940. ..</b>	<b>.25</b>	<b>M36-4020</b>
4-3	<b>Peat producers in Canada. 1948 .....</b>	<b>.25</b>	<b>M36-4030</b>
5-1	Petroleum and natural gas. 1930. Discontinued .....	<b>o.p.</b>	<b>M36-5010</b>
5-2	<b>Petroleum refineries in Canada. Annual.</b>	<b>.25</b>	<b>M36-5020</b>
6-1	<b>Cement mills in Canada. 1950 .....</b>	<b>.25</b>	<b>M36-6010</b>
6-2	Sand-lime brick plants in Canada. 1929. Discontinued .....	<b>o.p.</b>	<b>M36-6020</b>
6-3	<b>Manufacturers of clay products in Canada. 1950. ....</b>	<b>.25</b>	<b>M36-6030</b>
6-4	<b>Lime kilns in Canada. 1949 .....</b>	<b>.25</b>	<b>M36-6040</b>
6-5	Sand and gravel pits. 1929. Discontinued	<b>o.p.</b>	<b>M36-6050</b>
6-6	<b>Stone quarry operators in Canada. 1948.</b>	<b>.25</b>	<b>M36-6060</b>
7-1	<b>Exploration companies in Canada. 1948.</b>	<b>.25</b>	<b>M36-7010</b>

## INFORMATIONS CIRCULARS

**Information Circulars.** No. MR1.-MR26, 1954-1957.

Prepared by the Mineral Resources Division.

**MR1.—Survey of developments in the titanium industry during 1953,** by W. Keith Buck. Ottawa, February, 1954.

Out of print.

Cat. No. M38-2/1

**MR2.—Survey of the iron ore industry in Canada during 1953,** by W. Keith Buck. Ottawa, March, 1954.

Out of print.

Cat. No. M38-2/2

**MR3.—Survey of the natural gas industry in Canada during 1953,** by R. B. Toombs. Ottawa, March, 1954.

Out of print.

Cat. No. M38-2/3

**MR4.—Survey of the petroleum industry in Canada during 1953,** by R. B. Toombs. Ottawa, April, 1954.

Out of print.

Cat. No. M38-2/4

**MR5.—Canadian iron ore industry and its relationship to the St. Lawrence Seaway,** by W. Keith Buck. Ottawa, April, 1954.

Out of print.

Cat. No. M38-2/5

**MR6.—Not published.**

**MR7.—Zirconium,** by R. J. Jones. Ottawa, July, 1954.

Out of print.

Cat. No. M38-2/7

**MR8.—Columbium and tantalum in Canada,** by R. J. Jones. Ottawa, September, 1954.

Out of print.

Cat. No. M38-2/8

**MR9.—Cerium,** by W. J. Beard. Ottawa, February, 1955.

Out of print.

Cat. No. M38-2/9

**MR10.—Beryllium in Canada,** by W. J. Beard. Ottawa, April, 1955.

Out of print.

Cat. No. M38-2/10

**MR11.—Indium,** by R. E. Neelands. Ottawa, April, 1955.

Out of print.

Cat. No. M38-2/11

**MR12.—Germanium,** by W. J. Beard. Ottawa, April, 1955.

Out of print.

Cat. No. M38-2/12

**MR13.—Survey of the iron ore industry in Canada during 1954,** by W. Keith Buck. Ottawa, April, 1955. 38p. Figs.

Free.

Cat. No. M38-2/13

**MR14.—Survey of developments in the titanium industry during 1954,** by W. Keith Buck. Ottawa, April, 1955. 26p. Tables.

Out of print.

Cat. No. M38-2/14

**MR15.—Survey of the petroleum industry in Canada during 1954,** by R. B. Toombs. Ottawa, May, 1955. 31p. Tables, charts.

Out of print.

Cat. No. M38-2/15

**Information Circulars.—Continued.**

- MR16.—**Survey of the natural gas industry in Canada during 1954**, by R. B. Toombs. Ottawa, June, 1955.  
Out of print. Cat. No. M38-2/16
- MR17.—**Survey of the iron ore industry in Canada during 1955**, by W. Keith Buck. Ottawa, March, 1956. 48p. Figs.  
Out of print. Cat. No. M38-2/17
- MR18.—**Survey of developments in the titanium industry during 1955**, by W. Keith Buck. Ottawa, April, 1956. 24p. Tables.  
Out of print. Cat. No. M38-2/18
- MR19.—**Survey of the petroleum industry in Canada during 1955**, by R. B. Toombs. Ottawa, June, 1956.  
Out of print. Cat. No. M38-2/19
- MR20.—**Survey of the natural gas industry in Canada during 1955**, by R. B. Toombs. Ottawa, June, 1956. 33p. Tables.  
Out of print. Cat. No. M38-2/20
- MR21.—**Rare or less common metals in Canada**, by T. H. Janes. Ottawa, October, 1956. 16p.  
Free. Cat. No. M38-2/21
- MR22.—**Survey of the iron ore industry in Canada during 1956**, by T. H. Janes. Ottawa, May, 1957. 83p. Figs.  
Free. Cat. No. M38-2/22
- MR23.—**Survey of the petroleum industry in Canada during 1956**, by R. B. Toombs and R. A. Simpson. Ottawa, June, 1957. 80p. Tables.  
Out of print. Cat. No. M38-2/23
- MR24.—**Survey of the natural gas industry in Canada during 1956**, by R. B. Toombs and R. A. Simpson. Ottawa, May, 1957. 49p. Tables, charts.  
Out of print. Cat. No. M38-2/24
- MR25.—**Survey of the gold mining industry in Canada during 1956**, by T. W. Verity. Ottawa, May, 1957. 55p. Map.  
Free. Cat. No. M38-2/25
- MR26.—**Survey of developments in the titanium industry during 1956**, by T. H. Janes. Ottawa, August, 1957. 40p. Tables.  
Free. Cat. No. M38-2/26

*Note.—This series is continued under the name of Mineral Information Bulletins by the Mineral Resources Division.*



## INFORMATION CIRCULARS

**Information Circulars.** No. IM1-3, 1955-1956.

Prepared by the Industrial Minerals Division.

**IM1.—Lithium**, by V. A. Haw. Ottawa, June, 1955. 10p. Tables.

Free.

Cat. No. M38-4/1

**IM2.—Sampling and examination of clay and shale deposits**, by J. G. Phillips. Ottawa, December, 1955.

Out of print.

Cat. No. M38-4/2

**IM3.—Clays and shales of Eastern Canada**, by J. G. Phillips. Ottawa, October, 1956. 13p.

Free.

Cat. No. M38-4/3

*Note.—IM3 ends the Industrial Minerals Division Information Circular series. Further publications of this nature are issued by the Mines Branch, under a new series, commencing with IC102.*

## ACTS AND REGULATIONS

Administered by the Department of  
Mines and Technical Surveys

	Cat. No.	Price
<b>Canada Lands Surveys:</b>		
<b>Act</b> , R.S.C., 1952, c. 26, 26p. ....	YX54-26	.25
—amended, S.C., 1956, c. 22. 1p. ....	YX3-223/c.22	.15
<b>Examination Regulations</b> , P.C. 1955-1956 SOR/61-259 (July 12, 1961) 6p. ....	•	
<b>Tariff of Fees</b> , SOR/54-102 (April 14, 1954), 1p. ....	•	
<b>Department of Mines and Technical Surveys:</b>		
<b>Act</b> , R.S.C., 1952, c. 73. 4p. ....	YX54-73	.15
<b>Emergency Gold Mining Assistance:</b>		
<b>Act</b> , R.S.C., 1952, c. 95. 10p. ....	YX54-95	.15
—amended, R.S.C., 1952, c. 318. 2p. ....	YX54-318	.15
—amended, S.C., 1952-53, c. 32. 2p. ....	YX3-217/c.32	.15
—amended, S.C., 1953-54, c. 26. 1p. ....	YX3-221/c.26	.15
—amended, S.C., 1955, c. 19. 2p. ....	YX3-222/c.19	.15
—amended, S.C., 1956, c. 20. 1p. ....	YX3-223/c.20	.15
—amend, S.C., 1958, c. 28 1p. ....	YX3-241/c.28	.15
—amended, S.C., 1960, c. 28. 1p. ....	YX3-243/c.28	.25
<b>Act and regulations</b> . Office consolidation. 1956. 39p. ....	YX1-4056	.25
<b>Regulations</b> , P.C. 1960, SOR/60-401 (Sep- tember 14, 1960). 26p. ....	SP2-560/401	.25
<b>Explosives:</b>		
<b>Act</b> , R.S.C., 1952, c. 102. 11p. ....	YX54-102	.15
—amended, S.C., 1953-54, c. 14. 4p. ....	YX3-221/c.14	.15
<b>Regulations</b> , P.C. 1956-349, SOR/56-88. 68p.	SP2-556/88	.55
—amended, P.C. 1956-1552, SOR/56-396. 1p.	SP2-556/396	.15
—amended, P.C. 1957-335, SOR/57-84: Ammonium nitrate and fuel oil order. 1p.	SP2-557/84	.15

\*Note.—Contained in the regular issue of the *Canada Gazette*, Part II, cited in each case. Price for single copies, 50¢.

## LOIS ET RÈGLEMENTS

**Appliqués par le ministère des Mines  
et des Relevés techniques**

	N° de cat.	Prix
<b>Arpentage des terres du Canada:</b>		
Loi, S.R.C., 1952, c. 26. 27p. ....	YX54-26F	.25
—modifiée, S.C., 1956, c. 22. 1p. ....	YX3-223/c.22F	.15
<b>Règlements:</b>		
Examens sur l'arpentage, C.P. 1955-1556, DORS/61-259 (12 juillet 1961). 6p. ....	•	
Tarif des droits, DORS/54-102 (14 avril 1954). 1p. ....	•	
<b>Exploitation des mines d'or (aide):</b>		
Loi, S.R.C., 1952, c. 95. 10p. ....	YX54-95F	.15
—modifiée, S.R.C., 1952, c. 318. 2p. ....	YX54-318F	.15
—modifiée, S.C., 1952-53, c. 32. 2p. ....	YX3-217/c.32F	.15
—modifiée, S.C., 1953-54, c. 26. 1p. ....	YX3-221/c.26F	.15
—modifiée, S.C., 1955, c. 19. 2p. ....	YX3-222/c.19F	.15
—modifiée, S.C., 1956, c. 20. 1p. ....	YX3-223/c.20F	.15
—modifiée, S.C., 1958, c. 28. 1p. ....	YX3-241/c.28	.15
—modifiée, S.C. 1960, c. 28. 1p. ....	YX3-243/c.28	.25
Règlements, C.P. 1960-1162, DORS/60-401 (14 septembre 1961). 27p. ....	SP2-560/401F	.25
<b>Explosifs:</b>		
Loi, S.R.C., 1952, c. 102. 11p. ....	YX54-102F	.15
—modifiée, S.C., 1953-54, c. 14. 4p. ....	YX3-221/c.14F	.15
Règlements, C.P. 1956-349, DORS/56-88. 73p. ....	SP2-556/88F	.55
—modifiés, C.P. 1956-1552, DORS/56-396. 1p. ....	SP2-556/396F	.15
—Modifiés, C.P. 1957-335, DORS/57-84. 1p.	SP2-557/84F	.15
<b>Ministère des Mines et des Relevés techniques:</b>		
Loi, S.R.C., 1952, c. 73. 4p. ....	YX54-73F	.15

\*Note.—Voir la livraison régulière de la Gazette du Canada, partie 2, à la date citée. Prix: 50¢. l'exemplaire.



## ANNUAL REPORTS

**Reports of the Department of Mines for the fiscal years ending March 31, during the period 1921 to 1936.** Included are statements from the Geological Survey, the National Museum of Canada (formerly Victoria Memorial Museum), the Mines Branch, the Explosives Division, the Editorial Division and the Accounting Division.

*Note.*—The Department of Mines from 1907 to 1920 did not prepare an annual report distinct from the annual summary reports issued by the Geological Survey of Canada and the Mines Branch. These annual summary reports of the Mines Branch are listed under the series of reports, see pages 21 to 86.

Year	Pages	Pub. No.	Price	Cat. No.	Year	Pages	Pub. No.	Price	Cat. No.
1921	47p.	1903	.10	M1-21	1929	58p.	2217	.25	M1-29
1922	48p.	1968	.10	M1-22	1930	61p.	2269	o.p.	M1-30
1923	58p.	2005	.10	M1-23	1931	61p.	2297	.25	M1-31
1924	71p.	2047	.15	M1-24	1932	50p.	2315	.25	M1-32
1925	75p.	2076	.15	M1-25	1933	43p.	2338	.25	M1-33
1926	77p.	2116	.20	M1-26	1934	44p.	2360	.25	M1-34
1927	59p.	2142	.15	M1-27	1935	48p.	2402	.25	M1-35
1928	65p.	2182	.15	M1-28	1936	54p.	2423	.25	M1-36

**Reports of the Department of Mines and Resources for the fiscal years ended March 31, during the period 1937 to 1949.** Included are statements from the Mines and Geology Branch, the Lands, Parks and Forests Branch, the Surveys and Engineering Branch, the Indian Affairs Branch, the Immigration Branch, and reports of Soldier Settlement of Canada for 1937 to 1944.

Year	Pages	Price	Cat. No.	Year	Pages	Price	Cat. No.
1937	333p.	o.p.	M1-37	1944	231p.	o.p.	M1-44
1938	330p.	o.p.	M1-38	1945	220p.	o.p.	M1-45
1939	351p.	o.p.	M1-39	1946	258p.	o.p.	M1-46
1940	258p.	o.p.	M1-40	1947	270p.	o.p.	M1-47
1941	244p.	o.p.	M1-41	1948	270p.	.50	M1-48
1942	192p.	o.p.	M1-42	1949	256p.	.50	M1-49
1943	207p.	o.p.	M1-43				

**Reports of the Department of Mines and Technical Surveys for the fiscal years ended March 31, for the period beginning in 1950.** Included are statements from the Explosives Division, the Surveys and Mapping Branch, the Geological Survey of Canada, the Mines Branch, the Dominion Observatories, and the Geographical Branch.

Year	Pages	Price	Cat. No.	Year	Pages	Price	Cat. No.
1950	112p.	.50	M1-50	1954	107p.	.50	M1-54
1951	98p.	.50	M1-51	1955	118p.	.50	M1-55
1952	108p.	.50	M1-52	1956	113p.	.50	M1-56
1953	98p.	.50	M1-53	1957	131p.	o.p.	M1-57

## MINES BRANCH PUBLICATIONS

### Annual Reports.—Continued.

Reports of the Department of Mines and Technical Surveys for the calendar years for the period beginning in 1957. Included are statement from the Administration Branch (Explosives Division and Mineral Resources Division), the Surveys and Mapping Branch, the Geological Survey of Canada, the Mines Branch, the Dominion Observatories and the Geographical Branch.

Year	Pages	Price	Cat. No.	Year	Pages	Price	Cat. No.
1957	142p.	o.p.	M1-457	1959	159p.	\$1.00	M1-4/1959
1958	143p.	\$1.00	M1-458	1960	61p.	\$1.00	M1-4/1960

### Summary of activities of the Department of Mines and Technical Surveys for the calendar years for the period beginning in 1950.

Year	Pages	Price	Cat. No.	Year	Pages	Price	Cat. No.
1950 (1st)	37p.	o.p.	M2-50	1954 (5th)	42p.	free	M2-54
1951 (2nd)	50p.	o.p.	M2-51	1955 (6th)	51p.	o.p.	M2-55
1952 (3rd)	90p.	o.p.	M2-52	1956 (7th)	63p.	free	M2-56
1953 (4th)	65p.	o.p.	M2-53				

**Note.**—The publications covering the summary of activities for the calendar year 1956 ends this series. The annual reports should now be consulted for such information.

## RAPPORTS ANNUELS

**Rapports du ministère des Mines** pour l'année financière se terminant le 31 mars, pour la période **1921-1936** comprenant les rapports de la Commission géologique, du Musée national, de la Division des mines, de la Division des explosifs, de la Division des publications et de la Division de la comptabilité.

*Note.—Le Ministère des Mines depuis sa création en 1907 jusqu'en 1920 ne prépara pas de rapports annuels distincts des rapports sommaires de ses deux Divisions principales: la Commission géologique et la Division des mines. Les rapports sommaires de la Division des mines font partie de sa série de rapports. (Voir pages 21-86.)*

Année	Pages	Pub. n°	Prix	N° de cat.	Année	Pages	Pub. n°	Prix	N° de cat.
1921	49p.	1954	épuisé	M1-21F	1929	62p.	2231	épuisé	M1-29F
1922	50p.	1973	épuisé	M1-22F	1930	65p.	2276	épuisé	M1-30F
1923	62p.	2011	épuisé	M1-23F	1931	39p.	2307	épuisé	M1-31F
1924	75p.	2054	épuisé	M1-24F	1932	31p.	2334	épuisé	M1-32F
1925	79p.	2090	épuisé	M1-25F	1933	27p.	2342	épuisé	M1-33F
1926	83p.	2123	épuisé	M1-26F	1934	30p.	2361	épuisé	M1-34F
1927	63p.	2148	épuisé	M1-27F	1935	41p.	2408	épuisé	M1-35F
1928	67p.	2203	épuisé	M1-28F	1936	44p.	2431	épuisé	M1-36F

**Rapports du ministère des Mines et des Ressources** pour l'année financière terminée le 31 mars, pour la période **1937-1949** comprenant les rapports de la Division des mines et de la géologie, de la Division des terres, parcs et forêts, de la Division des arpentages et du génie, de la Division des affaires indiennes, de la Division de l'immigration, et le rapport sur l'établissement des soldats au Canada pour les années 1937-1944.

Année	Pages	Prix	N° de cat.	Année	Pages	Prix	N° de cat.
1937	352p.	épuisé	M1-37F	1944	259p.	épuisé	M1-44F
1938	346p.	épuisé	M1-38F	1945	234p.	épuisé	M1-45F
1939	372p.	épuisé	M1-39F	1946	280p.	épuisé	M1-46F
1940	268p.	épuisé	M1-40F	1947	292p.	épuisé	M1-47F
1941	260p.	épuisé	M1-41F	1948	316p.	épuisé	M1-48F
1942	200p.	épuisé	M1-42F	1949	284p.	épuisé	M1-49F
1943	224p.	épuisé	M1-43F				

**Rapports du ministère des Mines et des Relevés techniques** pour l'année financière terminée le 31 mars, pour la période 1950-1957.

*Sommaire.—Introduction.—Division des mines.—Commission géologique du Canada.—Division des levés et de la cartographie.—Observatoires fédéraux.—Division de la géographie.—Publications.*

Année	Pages	Prix	N° de cat.	Année	Pages	Prix	N° de cat.
1950	127p.	.50	M1-50F	1954	115p.	.50	M1-54F
1951	110p.	épuisé	M1-51F	1955	120p.	.50	M1-55F
1952	129p.	.50	M1-52F	1956	113p.	.50	M1-56F
1953	112p.	.50	M1-53F	1957	136p.	.50	M1-57F



## MINES BRANCH PUBLICATIONS

### Rapports annuels.—*Suite.*

Rapports du ministère des Mines et des Relevés techniques pour les années civiles à partir de 1957 comprenant les rapports de l'administration (y compris la Division des explosifs et la Division des ressources minérales), de la Direction des levés et de la cartographie, de la Commission géologique du Canada, de la Direction des mines, de la Direction des observatoires fédéraux, ainsi que de la Direction de la géographie.

Année	Pages	Prix	N° de cat.	Année	Pages	Prix	N° de cat.
1957	147p.	épuisé	M1-457F	1959	173p.	\$1.00	M1-4/1959F
1958	155p.	épuisé	M1-458F	1960	69p.	\$1.00	M1-4/1960F

### Exposé sommaire des travaux du ministère des Mines et des Relevés techniques pour les années civiles à partir de 1950.

Année	Pages	Prix	N° de cat.	Année	Pages	Prix	N° de cat.
1950 (1 <sup>er</sup> )	42p.	épuisé	M2-50F	1954 (5 <sup>e</sup> )	52p.	épuisé	M2-54F
1951 (2 <sup>e</sup> )	53p.	épuisé	M2-51F	1955 (6 <sup>e</sup> )	60p.	épuisé	M2-55F
1952 (3 <sup>e</sup> )	73p.	épuisé	M2-52F	1956 (7 <sup>e</sup> )	76p.	épuisé	M2-56F
1953 (4 <sup>e</sup> )	81p.	épuisé	M2-53F				

**Note.**—La publication de ces exposés sommaires a cessé en 1956. Ces renseignements se trouvent maintenant dans les rapports annuels.

**MINES BRANCH AND  
MINERAL RESOURCES  
DIVISION**

**Sectional Catalogue No. 12**

**DIRECTION DES MINES ET  
DIVISION DES RESSOURCES  
MINÉRALES**

**Bibliographie n° 12**

## **PART III**

### **Mines Branch Publications 1958**

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## MINES BRANCH PUBLICATIONS

The first five categories listed in Part I have been reduced to four—Monographs, Research Reports, Technical Bulletins and Information Circulars. The following paragraphs are intended to provide some information as to the scope of each.

**Monographs:** Reports giving a thorough treatment of a particular subject or class of subjects and likely to be valuable as reference texts.

**Research Reports:** Original contributions to science and technology, based primarily on laboratory research conducted in the Mines Branch laboratories or under Mines Branch auspices. This class does not include literature surveys. Reprints of research papers published in journals are included in this group.

**Technical Bulletins:** Reports in this category describe investigations at the Mines Branch on specific materials by applications of established or lesser-known procedures, where the work is considered to be of wide interest to the industry or the technical public.

**Information Circulars:** Contributions of general interest to industry and the public at large. This category may include literature and statistical surveys of a periodic nature, as well as short information bulletins.

The Monograph replaces the Report series which ended with No. 865, the Research Report replaces the Technical Paper series ending with No. 17, the Information Circular replaces the Memorandum series ending with No. 137 and the old Information Circular series ending with No. 26.



## MONOGRAPHS—MONOGRAPHIES

Mines Branch Reports or Monographs. No. 866- , 1959- .

*Note.*—Series commences with No. 866. Reports giving a thorough treatment of a particular subject or class of subjects and likely to be valuable as reference tests.

**866.—Manual of analytical methods for the uranium concentrating plant,** by J. C. Ingles. 1959. 3 parts. Illus. 26cm. Loose-leaf with binder.

Prepared in the Radioactivity Division.

*Contents.*—Part 1: General considerations.—Part 2: Methods—Uranium and thorium.—Part 3: Supplementary methods.

*This manual is an attempt to fill the need and to provide, in addition to tested analytical methods, the auxiliary information which is so valuable in operating the laboratory efficiently. The Radioactivity Division is continually improving and simplifying these methods as well as developing new ones, and from time to time, new sheets will be issued to be inserted in alphabetical order in the specified Part.*

\$10

Cat. No. M32-866

**867.—Experimental coal-burning gas turbine exhaust-heated cycle,** by J. W. Stachiewicz and D. L. Mordell. 1960. 176p. Illus., tables, graphs. Paper bound.

*This report describes the initial research and development of a completely new power plant carried out in Canada. It describes only what might be regarded as a first phase. The work was primarily a research effort designed to reveal and elucidate the problems that will be encountered in connection with the design and operation of a prototype power plant, which could be regarded as a second phase.*

\$4

Cat. No. M32-867

**Proceedings, conference on coal-burning gas turbines.** 249p.

\$2

Cat. No. M32-867/1

**868.—Analysis directory of Canadian coals, second edition (1953); Supplement No. 2 (1960),** by T. E. Tibbetts and W. J. Montgomery. 1962. 56p. Tables, folded maps. 25cm. Paper cover.

Prepared in the Fuels and Mining Practice Division.

*The object of this Directory is to provide general information on the characteristics of coals produced in various parts of Canada.*

See Memorandum Series No. 100 and Reports Nos. 836 and 850.

75¢.

Cat. No. M32-868

MINES BRANCH PUBLICATIONS

**Monographs.**—*Continued.*

PUBLICATIONS DE LA DIRECTION DES MINES

**INFORMATION CIRCULARS**

**CIRCULAIRES D'INFORMATION**

**Information Circulars.** No. IC102- , 1958- .

**Circulaires d'information.** N° IC102- , 1958- .

**IC102.—Forgeability of steels: a critical survey of the literature,** by W. A. Morgan and G. P. Contractor. Ottawa, January, 1958. 66p. Illus.

Prepared in the Physical Metallurgy Division.

25¢.

*Cat. No. M38-3/102*

**IC103.—Technical advances in milling and process metallurgy in Canada during 1957,** by L. E. Djigheuzian. Ottawa, March, 1958. 7p. Illus.

Prepared in the Mineral Dressing and Process Metallurgy Division.  
(Reprinted from Canadian Mining Journal, February, 1958).

25¢.

*Cat. No. M38-3/103*

**IC104.—Peat moss in Canada,** by A. A. Swinnerton. Ottawa, February, 1958. 31p. Illus., tables.

Prepared in the Fuels Division.

25¢.

*Cat. No. M38-3/104*

**IC104.—Tourbe de mousse au Canada,** par A. A. Swinnerton, Division des combustibles, février 1958. Ottawa, 1961. 33p. Ill., tableaux.

*Le présent rapport décrit la formation, les propriétés et les usages de la mousse de tourbière, les méthodes de préparation du produit dans l'industrie de la mousse de tourbière, et comprend également un résumé statistique de la production et du commerce de la tourbe de mousse.*

25¢.

*N° de cat. M38-3/104F*

**IC105.—Story of the early days of the extraction of helium gas from natural gas in Canada, 1915-1920,** by John Satterly, University of Toronto. April, 1959. 42p. Illus.

Prepared in the Mines Branch.

25¢.

*Cat. No. M38-3/105*

**IC106.—Review and evaluation of methods of particle size analysis,** by R. F. Pilgrim. November 3, 1958. 83p. Tables.

Prepared in the Mineral Dressing and Process Metallurgy Division.

*Contents.—Part 1: Definition of terms and classification of sizing methods.—Part 2: Sieve analysis.*

25¢.

*Cat. No. M38-3/106*

**IC107.—Copper in domestic water systems (a review),** by John Ungar. September 1, 1959. 16p.

Prepared in the Mineral Processing Division.

25¢.

*Cat. No. M38-3/107*

**IC108.—Extensive progress being made in high temperature technology,** by Norman F. H. Bright. Ottawa, October, 1958. 16p.

Prepared in the Mineral Dressing and Process Metallurgy Division.

(Reprinted from the December 25, 1958 issue of the Northern Miner).

10¢.

*Cat. No. M38-3/108*



## MINES BRANCH PUBLICATIONS

### Information Circulars.—*Continued.*

### Circulaires d'information.—*Suite.*

IC109.—**Direct reduction of iron ore**, by R. R. Rogers. Ottawa, October, 1958. 11p.

Prepared in the Mineral Dressing and Process Metallurgy Division.  
10¢.

Cat. No. M38-3/109

IC110.—Not available.

IC111.—**The corrosion resistance of wrought iron and open-hearth steel. A literature survey**, by I. I. Tingley and R. R. Rogers. Ottawa, December, 1958.

Prepared in the Mineral Dressing and Process Metallurgy Division.  
25¢.

Cat. No. M38-3/111

IC112.—Not available.

IC113.—**Radiation laboratory of the Mines Branch, 1947-1959**, by G. G. Eichholz. Ottawa, April 1, 1959. 51p. Illus.

Prepared in the Radioactivity Division.

25¢.

Cat. No. M38-3/113

IC114.—**Canadian gypsum industry**, by R. K. Collings. Ottawa, October 30, 1959. 41p. Tables, map, chart.

Prepared in the Mineral Processing Division.

*This report describes the occurrences, technology and uses of gypsum and briefly outlines the present-day position of gypsum in the Canadian mineral industry.*

25¢.

Cat. No. M38-3/114

IC115.—**Propagating and non-propagating fatigue cracks in metals**, by R. C. A. Thurston. Ottawa, January 20, 1960. 44p. Graphs.

Prepared in the Physical Metallurgy Division.

25¢.

Cat. No. M38-3/115

IC116.—**Physical metallurgy and uses of gold; bibliography for the ten-year period 1950 to 1959**, by L. Badone, Canadian Metal Mining Association and N. S. Spence. Ottawa, January, 1960. 86p.

Prepared in the Physical Metallurgy Division.

25¢.

Cat. No. M38-3/116

IC117.—**Directory and bibliography of high temperature condensed states research in Canada and elsewhere, 1959**, by Norman F. H. Bright. Ottawa, March, 1960. 99p. Tables.

Prepared in the Mineral Sciences Division.

25¢.

Cat. No. M38-3/117

IC118.—**Directory and bibliography of high temperature condensed state research in Canada and elsewhere, January to March, 1960**, by Norman F. H. Bright. Ottawa, May 30, 1960. 55p.

Prepared in the Mineral Sciences Division.

25¢.

Cat. No. M38-3/118

**Information Circulars.—Continued.**

**Circulaires d'information.—Suite.**

- IC119.—**Directory and bibliography of high temperature condensed state research in Canada and elsewhere, April to June, 1960**, by Norman F. H. Bright. Ottawa, August 25, 1960. 61p.  
Prepared in the Mineral Sciences Division.  
25¢. Cat. No. M38-3/119
- IC120.—**Selection of steels for the avoidance of brittle failure**, by K. Winterton. July, 1960. 44p. Figs.  
Prepared in the Physical Metallurgy Division.  
25¢. Cat. No. M38-3/120
- IC121.—**Present status of underground storage of natural gas in southern Ontario and Quebec**, by R. P. Charbonnier. Ottawa, May, 1960. 24p. Tables.  
Prepared in the Fuels and Mining Practice Division.  
25¢. Cat. No. M38-3/121
- IC122.—**Bibliography of high temperature condensed states research in Canada and elsewhere, July to September, 1960**, by Norman F. H. Bright. Ottawa, November, 1960. 69p.  
Prepared in the Mineral Sciences Division.  
25¢. Cat. No. M38-3/122
- IC123.—**Bibliography of high temperature condensed states research in Canada and elsewhere, October to December, 1960**, by Norman F. H. Bright. January, 1961. 74p.  
Prepared in the Mineral Sciences Division.  
25¢. Cat. No. M38-3/123
- IC124.—**Brief history of welding technology**, by K. Winterton. Ottawa, March, 1961. 81p. Illus.  
Prepared in the Physical Metallurgy Division.  
25¢. Cat. No. M38-3/124
- IC125.—**Notes on the safe handling of uranium alloys in industry**, by G. G. Eichholz. Ottawa, January, 1961. 17p. Tables.  
Prepared in the Mineral Sciences Division.  
25¢. Cat. No. M38-3/125
- IC126.—**Barium minerals industry in Canada**, by J. S. Ross. Ottawa, September, 1960. 60p. Tables, figs.  
Prepared in the Mineral Processing Division.  
25¢. Cat. No. M38-3/126
- IC127.—**Fluorspar**, by C. M. Bartley. Ottawa, April, 1961. 55p. Tables.  
Prepared in the Mineral Processing Division.  
*This publication provides data on the properties and uses of fluorspar, on the world production and consumption trends, and on Canadian deposits and occurrences.*  
25¢. Cat. No. M38-3/127
- IC128.—**Bibliography of high temperature condensed states research in Canada and elsewhere, January to March, 1961**, by Norman F. H. Bright. Ottawa, June, 1961. 86p.  
Prepared in the Mineral Sciences Division.  
25¢. Cat. No. M38-3/128

## MINES BRANCH PUBLICATIONS

### Information Circulars.—Continued.

### Circulaires d'information.—Suite.

IC129.—Physical metallurgy and uses of gold: the properties of gold and alloys containing gold, by L. Badone of the Canadian Metal Mining Association, and N. S. Spence of the Physical Metallurgy Division. October, 1961. 192p. Tables, graphs. Prepared in the Physical Metallurgy Division.

\$1

Cat. No. M38-3/129

IC130.—Bibliography of high temperature condensed states research in Canada and elsewhere, April to June, 1961, by Norman F. H. Bright. Ottawa, July, 1961. 97p.

Prepared in the Mineral Sciences Division.

25¢.

Cat. No. M38-3/130

IC131.—List of certified electrical apparatus, certified fire-resistant conveyor belting and certified diesel engines for coal mine use, by G. K. Brown. Certification list No. 1 to June 30, 1961, August, 1961. 16p. Tables.

Prepared in the Fuels and Mining Practice Division.

25¢.

Cat. No. M38-3/131

IC132.—Directory and bibliography of high temperature condensed states research in Canada and elsewhere, July to September, 1961, by Norman F. H. Bright. November, 1961. 41p.

Prepared in the Mineral Sciences Division.

25¢.

Cat. No. M38-3/132

IC133.—Analyses of coal and coke during 1960, by W. J. Montgomery and J. G. Jorgensen. December, 1961. 20p. Tables.

Prepared in the Fuels and Mining Practice Division.

25¢.

Cat. No. M38-3/133

IC135.—Bibliography of high temperature condensed states research in Canada, October to December, 1961, by Norman F. H. Bright. February, 1962. 7p.

Prepared in the Mineral Sciences Division.

25¢.

Cat. No. M38-3/135



**Information Circulars.**—*Continued.*

**Circulaires d'information.**—*Suite.*

MINES BRANCH PUBLICATIONS

**Information Circulars.**—*Continued.*

**Circulaires d'information.**—*Suite.*

## RESEARCH REPORTS

Research Reports. No. R1- , 1958- .

*Note.*—Original contributions to science and technology, based primarily on laboratory research conducted in the Mines Branch laboratories or under Mines Branch auspices. This class does not include literature surveys. Reprints of research papers published in journals are included in this group.

R1.—Some effects of pressure on consumable electrode arc melting, by J. W. Suiter. Ottawa, May, 1958. 9p. Figs.

Prepared in the Physical Metallurgy Division.

25¢.

Cat. No. M38-1/1

R2.—Effects of furnace atmospheres on the sintering behaviour of uranium dioxide, by A. H. Webster and N. F. H. Bright. Ottawa, February, 1958. 50p. Illus. Tables.

Prepared in the Mineral Dressing and Process Metallurgy Division.

25¢.

Cat. No. M38-1/2

R3.—Leaching of manganese from pyrolusite ore by pyrite, by G. Thomas and B. J. P. Whalley. Ottawa, February, 1958. 7p. Illus.

Prepared in the Mineral Dressing and Process Metallurgy Division.

25¢.

Cat. No. M38-1/3

R4.—Compound  $\text{CaO} \cdot \text{Ti}_2\text{O}_3$ , by N. F. H. Bright, J. F. Rowland and J. G. Wurm. Ottawa, March, 1958. 4p. Tables.

Prepared in the Mineral Dressing and Process Metallurgy Division.

25¢.

Cat. No. M38-1/4

R5.—Influence of aluminum, lead and iron on the structure and properties of galvanized coatings, by J. J. Sebisty and J. O. Edwards. Ottawa, March, 1958. 47p. Illus., Tables.

Prepared in the Physical Metallurgy Division.

25¢.

Cat. No. M38-1/5

R6.—Study of surface carbides, differential steel attack and pore formation in the galvanizing process, by J. J. Sebisty. Ottawa, March, 1958. 18p. Illus.

Prepared in the Physical Division.

25¢.

Cat. No. M38-1/6

R7.—Some new fluoride complexes of trivalent titanium, by N. F. H. Bright and J. G. Wurm. Ottawa, April, 1958. 8p. Tables.

Prepared in the Mineral Dressing and Process Metallurgy Division.

25¢.

Cat. No. M38-1/7

R8.—Chemistry of manganese deposits, by W. R. Trost. June 4, 1958. Ottawa, June, 1959. 125p. Tables, figs.

Prepared in the Mineral Dressing and Process Metallurgy Division.

25¢.

Cat. No. M38-1/8

R9.—Effect of zinc content on some properties of sandcast magnesium-zinc alloys, by B. Lagowski and J. W. Meier.

(See R22, R56 and R63 for Part II, III and IV).

In preparation.

Cat. No. M38-1/9



## MINES BRANCH PUBLICATIONS

### Research Reports.—Continued.

R10.—Will not be available.

R11.—Design of heat-treatable titanium alloys, by A. J. Williams. Ottawa, June, 1958. 26p. Illus., tables.

Prepared in the Physical Metallurgy Division.

25¢.

Cat. No. M38-1/11

R12.—Will not be available.

R13.—Will not be available.

R14.—Voltaic cells in fused salts. Part III. The system: silver-silver chloride, cadmium-cadmium chloride, by S. N. Flengas and T. R. Ingraham. Ottawa, May, 1958. 6p. Tables, figs.

Prepared in the Mineral Dressing and Process Metallurgy Division.

25¢.

Cat. No. M38-1/14

R15.—Radioactive dial marker for the Decca Navigational Aid, by G. E. Alexander and G. G. Eichholz. Ottawa, June, 1958. 8p. Figs.

Prepared in the Radioactivity Division.

25¢.

Cat. No. M38-1/15

R16.—Voltaic cells in fused salts. Part I. The silver-silver chloride, cobalt-cobaltous chloride system, by S. N. Flengas and T. R. Ingraham. Ottawa, 1958. 11p. Figs.

Prepared in the Mineral Dressing and Process Metallurgy Division.

25¢.

Cat. No. M38-1/16

R17.—Voltaic cells in fused salts. Part II. The systems: (a) silver-silver chloride, lead-lead chloride; (b) silver-silver chloride, zinc-zinc chloride; (c) silver-silver chloride, nickel-nickelous chloride, by S. N. Flengas and T. R. Ingraham. Ottawa, 1958. 6p. Illus., tables.

Prepared in the Mineral Dressing and Process Metallurgy Division.

25¢.

Cat. No. M38-1/17

R18.—Measurement of the residence time of slurries in an aerator tank using radioactive tracers, by E. C. Gibson and G. G. Eichholz. Ottawa, June, 1958. 10p. Illus.

Prepared in the Radioactivity Division.

25¢.

Cat. No. M38-1/18

R19.—Experimental electric smelting of manganese ores, Part I, by R. A. Campbell, G. E. Viens and R. R. Rogers. Ottawa, 1958. 7p. Tables.

Prepared in the Mineral Dressing and Process Metallurgy Division.

25¢.

Cat. No. M38-1/19

R20.—Voltaic cells in fused salts. Part IV. Electrode potentials of the systems:  $Tl/TlCl$  ( $KCl-NaCl$ ),  $Cu/CuCl$  ( $KCl-NaCl$ ),  $Cu/CuCl_2$  ( $KCl-NaCl$ ),  $Cr/CrCl_2$  ( $KCl-NaCl$ ), and  $Cr/CrCl_3$  ( $KCl-NaCl$ ). Radox potentials of the systems:  $Pt/CuCl$ ,  $CuCl_2$  ( $KCl-NaCl$ ), and  $Pt/CrCl_2$ ,  $CrCl_3$  ( $KCl-NaCl$ ), by S. N. Flengas and T. R. Ingraham. Ottawa, 1958. 13p. Tables, figs.

Prepared in the Mineral Dressing and Process Metallurgy Division. (Reprinted from Canadian Journal of Chemistry, vol. 36, 1958, pp. 1103-1115).

25¢.

Cat. No. M38-1/20

**Research Reports.—Continued.**

- R21.—**On the occurrence of E-carbide in iron**, by F. W. C. Boswell. Reprinted from ACTA Crystallographica, vol. 2, part 1, January, 1958. Ottawa, 1958. 4p. Table.  
Prepared in the Physical Metallurgy Division.  
25¢. Cat. No. M38-1/21
- R22.—**Properties of sand-cast magnesium alloys. Part II: Metallography of magnesium-zinc alloys**, by B. Lagowski. Ottawa, 1958.  
Prepared in the Physical Metallurgy Division.  
(See R9, R56 and R63 for Part I, III and IV).  
In preparation. Cat. No. M38-1/22
- R23.—**Effect of shot peening prior to electroplating on the fatigue properties of an alloy steel**, by N. B. Brown. Ottawa, September, 1958. 12p. Illus., tables.  
Prepared in the Physical Metallurgy Division.  
25¢. Cat. No. M38-1/23
- R24.—**Gamma-ray analysis of atmospheric dust samples**, by J. L. Horwood. Ottawa, September, 1958. 22p. Table, figs.  
Prepared in the Radioactivity Division.  
25¢. Cat. No. M38-1/24
- R25.—**Determination of kerosene entrainment losses in the solvent extraction of a leach liquor**, by C. M. Lapointe. Ottawa, September, 1958. 16p. Figs.  
Prepared in the Radioactivity Division.  
25¢. Cat. No. M38-1/25
- R26.—**Composition and chrysallography of niocalite**, by E. H. Nickel, J. F. Rowland and J. A. Maxwell. Ottawa, September, 1958. 9p. Tables, figs.  
Prepared in the Mineral Dressing and Process Metallurgy Division.  
(Reprinted from the Canadian Mineralogist, vol. 6, part II, 1958).  
25¢. Cat. No. M38-1/26
- R27.—**Composition and microtexture of an ulvöspinel magnetite intergrowth**, by E. H. Nickel. Ottawa, September, 1958. 9p. Tables, figs.  
Prepared in the Mineral Dressing and Process Metallurgy Division.  
(Reprinted from the Canadian Mineralogist, vol. 6, part II, 1958).  
25¢. Cat. No. M38-1/27
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Research Reports.—*Continued.*

## TECHNICAL BULLETINS

Mines Branch Technical Bulletins. No. TB1- , 1959- .

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Prepared in the Extraction Metallurgy Division.

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**Technical Bulletins.**—*Continued.*

## **PART IV**

# **Publications of the Mineral Resources Division 1958**

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# OPERATORS LISTS

A series of nine publications dealing with Canadian

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- MILLS
- METALLURGICAL WORKS
- OIL REFINERIES
- GAS PROCESSING PLANTS

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## MINERAL RESOURCES DIVISION PUBLICATIONS

Mineral Resources Division publications fall under the following seven classifications: (1) Mineral Reports (2) Mineral Surveys, (3) Mineral Information Bulletins, (4) Operators Lists, (5) Annual Mineral Reviews, (6) Maps, and (7) Miscellaneous publications.

**The Mineral Reports, Mineral Surveys and Mineral Information Bulletins** cover studies on mineral resources, mineral economics, mineral legislation, mineral taxation, mining technology and other miscellaneous mineral industry subjects. However, it is intended that the Mineral Report series will consist of exhaustive authoritative studies having value as reference or historical documents, while publications in the Mineral Information Bulletin series will perhaps be of short-term value and not too exhaustive in scope. Publications in the Mineral Surveys series will fall between these two, having reasonably long-term value and a reasonably thorough treatment of the subject matter. Reprints of articles appearing in technical journals will be included in the Mineral Information Bulletin series.

**Annual Mineral Reviews:** Annual preliminary mineral reviews on metallics, industrial minerals and fuel commodities are prepared in collaboration with the Mines Branch. Initially published as separates, the reviews are later revised, bound in book form, and released as a Mineral Report for the year concerned.

**Maps:** Includes all maps not used principally as illustrative material in Divisional reports.

**Miscellaneous publications:** This category has no numbering system to indicate a continuing series, nor will publications falling within this group necessarily follow a prescribed format. Such as special reports, illustrated brochures and pamphlets having a broad content are included under this heading. Annual Reports on the Administration of the Emergency Gold Mining Assistance Act are included.

## MINERAL REPORTS—RAPPORTS MINIERS

Mineral reports. No. 1- , 1960- .

Rapports miniers. N° 1- , 1960- .

Published by the Mineral Resources Division.

Publiés par la Division des ressources minérales.

**1.—Canadian mineral industry, 1956.** 1960. 447p. Tables, graphs.

Prepared in collaboration with the Mines Branch.

*Earlier publications of this nature and under the same title appeared as Mines Branch Reports, the first for 1934 and the last for 1955. Like the previous issues, the present volume contains reviews of the metallic minerals, industrial minerals and mineral fuels produced or consumed in commercial quantities in Canada during the year concerned. The reviews are the final versions of preliminary papers issued during 1957.*

\$1

Cat. No. M38-5/1

**1.—Industrie minière du Canada en 1956.** 1961. 496p. Ill., tableaux, graphiques, cartes.

*Le présent exposé traite surtout des progrès faits en 1956 par l'industrie minière du Canada mais il insiste passablement toutefois sur l'expansion que cette industrie a prise au cours des 30 dernières années.*

\$1

N° de cat. M38-5/1F

**2.—Canadian mineral industry, 1957.** 1960. 491p. Illus., tables, graphs, maps.

Prepared with the collaboration of the Mines Branch.

*This annual report contains reviews of the metallic minerals, industrial minerals and mineral fuels produced or consumed in commercial quantities in Canada during 1957.*

\$1

Cat. No. M38-5/2

**2.—Industrie minière du Canada en 1957.** 1961. 549p. Ill., tableaux, graphiques, cartes.

*Le présent rapport annuel contient des revues rétrospectives de la production et de la consommation des minéraux métalliques, des minéraux industriels et des combustibles minéraux au Canada en 1957.*

\$1

N° de cat. M38-5/2F

**3.—Platinum metals, by C. C. Allen.** 1960. 68p. Illus., tables, graphs, maps.

*This publication was designed to present, against a brief historical background, a comprehensive survey of recent technical and economic progress relative to the production and use of the platinum metals in their various forms.*

\$1

Cat. No. M38-5/3

**3.—Métaux du groupe platine, par C. C. Allen.** 1960. 74p. Ill., tableaux, graphiques, cartes.

*En rappelant brièvement l'histoire de ces métaux, la présente publication voudrait faire le point des progrès techniques et économiques récents dans la production et l'utilisation des métaux du groupe platine sous leurs diverses formes.*

\$1

N° de cat. M38-5/3F

**4.—Canadian mineral industry, 1958.** 1961 508p. Illus., tables, graphs, maps.

*This annual report contains reviews of the metallic minerals, industrial minerals and mineral fuels produced or consumed in commercial quantities in Canada during 1958.*

\$2

Cat. No. M38-5/4

**4.—L'industrie minière du Canada en 1958.**

En voie de préparation.

N° de cat. M38-5/4F

## MINERAL RESOURCES DIVISION PUBLICATIONS

### Mineral Reports.—Continued.

- 5.—**Canadian mineral industry, 1959.** Ottawa, 1962. 515p. Illus., tables, graphs, maps.

*This annual report contains reviews of the metallic minerals, industrial minerals and mineral fuels produced or consumed in commercial quantities in Canada during 1959.*

\$2

Cat. No. M38-5/5

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## ANNUAL PRELIMINARY MINERAL REVIEWS

- Advance chapters, in preliminary form, of *The Canadian Mineral Industry*.
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Mines Branch and Mineral Resources Division,  
Department of Mines and Technical Surveys,  
Ottawa.**

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PUBLICATIONS DE LA DIVISION DES  
RESSOURCES MINÉRALES

Mineral Reports.—*Continued.*

## MINERAL SURVEYS

**Mineral Surveys.** No. MS51- , 1962- .

MS1.—**Beryllium.** (In preparation).

MS2.—**Transportation.** (In press).

MS3.—**Silver.** (In preparation).

PUBLICATIONS DE LA DIVISION DES  
RESSOURCES MINÉRALES

**Mineral Surveys.**—*Continued.*



MINERAL RESOURCES DIVISION PUBLICATIONS

MINERAL INFORMATION BULLETINS

Mineral Information Bulletins. No. MR27- , 1958-  
Prepared by the Mineral Resources Division.

MR27.—Survey of the iron ore industry in Canada during 1957, by T. H. Janes and R. B. Elver. June, 1958. 116p. Tables, graphs, maps. 28cm. Processed. Paper cover.

*This publication provides a detailed study of the production, trade and developments of the iron ore industry in Canada during 1957. Maps showing the properties in production, properties under development for production within the next few years, and properties on which exploration of iron-bearing material is taking place are included.*

25¢.

Cat. No. M38-2/27

MR28.—Iron ore and other raw material sources for a primary iron and steel industry in Western Canada, by T. H. Janes. Ottawa, April, 1958. 10p. Tables, map.

Free.

Cat. No. M38-2/28

MR29.—Mineral legislation, 1958, compiled by E. C. Hodgson. December 12, 1958. 11p. 28cm. Processed. Paper cover.

*This publication attempts to catalogue the more important changes in legislation and other governmental actions which have affected in a direct manner the Canadian mineral industry excluding petroleum and natural gas during the past year.*

25¢.

Cat. No. M38-2/29

MR30.—Summary review of federal taxation and certain other federal legislation affecting mining, oil and natural gas enterprises in Canada, compiled by E. C. Hodgson. January 8, 1959. 23p. 28cm. Processed. Paper cover.

Prepared with the co-operation and guidance of the Department of National Revenue and of the various Departments concerned.

25¢.

Cat. No. M38-2/30

MR31.—Survey of the Canadian iron ore industry during 1958, by T. H. Janes and R. B. Elver. June, 1959. 148p. Tables, graphs, maps.

50¢.

Cat. No. M38-2/31

MR32.—Survey of the primary zinc industry in Canada in 1958, by D. B. Fraser. August, 1959. 69p. Tables, graphs, map. 28cm. Processed. Paper cover.

*This publication provides detailed information on the sources of primary production, trade, and consumption of zinc in Canada in 1958.*

50¢.

Cat. No. M38-2/32

MR33.—Markets for iron and steel products in Western Canada, by T. H. Janes. September, 1959. 28p. Tables. Processed. Paper cover.

*This publication briefly lists the rolling mill capacities of the primary iron and steel producers of Western Canada. It provides information, in some detail, on the consumption of steel rolling mill products, by kind, of the four western provinces.*

25¢.

Cat. No. M38-2/33

PUBLICATIONS DE LA DIVISION DES  
RESSOURCES MINÉRALES

**Mineral Information Bulletins.—Continued.**

**MR34.—Survey of the uranium industry in Canada**, by J. W. Griffith. November, 1959. 94p. Tables, graph, maps, diagrs. Processed. Paper cover.

*Contents.*—Introduction.—Producers and former producers.—Mining methods.—Ore treatment processes.—Production costs.—Refining.—Prices.—Markets.—Uses and requirements.—World resources and production of uranium.—Thorium in Canada.

50¢.

Cat. No. M38-2/34

**MR35.—Survey of the petroleum industry in Canada, 1957 and 1958**, by R. A. Simpson and R. L. Borden. June, 1959. 84p. Tables, graphs, maps. Processed. Paper cover.

*Contents.*—General summary.—Exploration and development.—Reserves of liquid hydrocarbons.—Development by provinces.—Transportation and storage.—Petroleum processing.—Marketing.—Supply and demand of all oils.—World statistics.

50¢.

Cat. No. M38-2/35

**MR36.—Survey of the steel pipe and tube industry of Canada**, by T. H. Janes. October, 1959. 46p. Illus., tables. Paper cover.

*Contents.*—Historical.—General.—Production, trade and consumption.—Canadian industry.—Specifications for steel pipe and tubing.—Methods of manufacture.—Oil and gas pipeline mileage in Canada.—Future of the industry.

50¢.

Cat. No. M38-2/36

**MR37.—Survey of the copper industry in Canada, 1958**, by A. F. Killin. October, 1959. 108p. Tables, graphs, map. Paper cover.

*Contents.*—General summary.—Copper producers in 1958.—Reserves of copper as related to production.—World mine production.—Domestic consumption and uses.—Prices.—Tariffs.

50¢.

Cat. No. M38-2/37

**MR38.—Some economic factors affecting Northern mineral development in Canada**, by Amil Dubnie. December, 1959. 61p. Map fold. Paper cover.

*The first part of this paper provides a description of prevailing northern conditions, with particular emphasis on those conditions which affect mining operations. The second part of the paper presents some detail on northern mining experience.*

Out of print.

Cat. No. M38-2/38

**MR39.—Survey of the natural gas industry in Canada 1957-1959**, by R. A. Simpson and R. L. Borden. 1960. 82p. Tables, graphs, figs. (1 folded in pocket).

50¢.

Cat. No. M38-2/39

**MR40.—St. Lawrence Seaway and the Canadian mineral industry with particular reference to iron ore**, by R. B. Elver. February, 1960. 21p. Tables, map.

25¢.

Cat. No. M38-2/40

**MR41.—Direct iron processes and their prospects in Eastern Canada**, by R. B. Elver. March, 1960. 63p. Illus., tables, graph. map.

50¢.

Cat. No. M38-2/41

# MINERAL RESOURCES DIVISION PUBLICATIONS

## Mineral Information Bulletins.—Continued.

- MR42.—Summary review of federal taxation and legislation affecting the Canadian mineral industry, compiled by E. C. Hodgson. Revised, February 3, 1961. 30p.

*This booklet is a summary of certain Federal legislation affecting mining, oil and gas enterprises in Canada.*

50¢.

Cat. No. M38-2/42

- MR43.—Survey of the primary zinc industry in Canada, 1959, by D. B. Fraser. 1960. 84p. Tables, graphs, map.

*This publication provides detailed information on primary production, trade and consumption of zinc in Canada in 1959.*

50¢.

Cat. No. M38-2/43

- MR44.—Survey of the uranium industry in Canada, 1959, by J. W. Griffith. 1960. 46p. Illus., tables, graph, maps.

*This bulletin is a summary of developments in the industry for the year 1959 but includes some developments up to the end of September 1960, and estimates of future production. It also deals with statistics on production for 1959 and 1958, ore reserves, costs, refining, prices, markets, world production and reserves, and a brief outline of thorium in Canada.*

50¢.

Cat. No. M38-2/44

- MR45.—Survey of the Canadian iron ore industry during 1959, by R. B. Elver. 1960. 121p. Tables, graphs, maps.

Out of print.

Cat. No. M38-2/45

- MR46.—Primary iron and steel industry in Canada, by T. H. Janes and G. E. Wittur. Ottawa, 1962. 79p. Illus., tables, graph.

50¢.

Cat. No. M38-2/46

- MR47.—Survey of the copper industry in Canada, 1959, by A. F. Killin. 1960. 107p. Tables, graph, map.

50¢.

Cat. No. M38-2/47

- MR48.—Survey of the petroleum industry in Canada, 1959, by R. A. Simpson, D. M. Nowlan and D. W. Rutledge. 1961. 82p. Tables, graphs, maps.

*This survey covers the main developments in 1959 and presents an interrelated review of progress in each of the four principal sectors of the industry: exploration, development and production; transportation and storage; petroleum processing; and marketing.*

50¢.

Cat. No. M38-2/48

- MR49.—Preliminary survey of the Canadian mineral industry in 1960. (Reprinted from February, 1961 issue of Canadian Mining Journal.) 1961. 38p. Illus., tables, graphs.

Out of print.

Cat. No. M38-2/49

- MR50.—Transportation of minerals in Northern Canada, by Amil Dubnie. 1961. 20p. Tables, map fold.

*As the cost of transportation is a major factor in northern mineral development, this paper examines the existing transportation facilities in the northern areas of Canada.*

50¢.

Cat. No. M38-2/50

- MR51.—Canadian iron ore industry in 1960, by R. B. Elver, 1961. 107p. Illus., tables, graphs, maps.

50¢.

Cat. No. M38-2/51



PUBLICATIONS DE LA DIVISION DES  
RESSOURCES MINÉRALES

**Mineral Information Bulletins.—Continued.**

**MR52.—Survey of the petroleum industry in Canada in 1960**, by R. A. Simpson, D. M. Nowlan and D. W. Rutledge. 1961. 91p. Tables, graphs, maps.

50¢.

Cat. No. M38-2/52

**MR53.—Lead and zinc in Canada**, by D. B. Fraser and J. W. Patterson. 1961. 82p. Illus., tables, graphs, charts, map.

50¢.

Cat. No. M38-2/53

**MR54.—Survey of the copper mining industry in Canada, 1960**, by A. F. Killin. 1962. 77p. Illus., tables, graphs, maps.

50¢.

Cat. No. M38-2/54

**MR55.—Natural gas industry in Canada, 1960**, by R. A. Simpson, D. M. Nowlan and D. W. Rutledge. 1961. 55p. Tables, graphs, maps.

*This survey presents an interrelated review of each of five principal sectors: production and reserves; exploration and development; natural gas processing; transportation and storage; marketing and trade.*

50¢.

Cat. No. M38-2/55

**MR56.—Preliminary survey of the Canadian mineral industry in 1961**. Reprinted from Canadian Mining Journal, February, 1962. 48p. Illus., graphs.

Prepared in the Mineral Resources Division and Mines Branch.

25¢.

Cat. No. M38-2/56

MINERAL RESOURCES DIVISION PUBLICATIONS

**Mineral Information Bulletins.**—*Continued.*

PUBLICATIONS DE LA DIVISION DES  
RESSOURCES MINÉRALES

**Mineral Information Bulletins.—***Continued.*



## OPERATORS LISTS

**Mineral Resources Operators Lists.** Published annually by the Mineral Resources Division. Ottawa. 25cm. Paper cover. 20-50p. Illus.

- |   |                         |
|---|-------------------------|
| 1, Part 1—Metallurgical works in Canada: primary iron and steel.<br>25¢.          | Cat. No. M36-(year)/1-1 |
| 1, Part 2—Metallurgical works in Canada: non-ferrous and previous metals.<br>25¢. | Cat. No. M36-(year)/1-2 |
| 2—Metal and industrial mineral mines in Canada.<br>25¢.                           | Cat. No. M36-(year)/2   |
| 3, Part 1—Milling plants in Canada: metallic ores.<br>25¢.                        | Cat. No. M36-(year)/3-1 |
| 3, Part 2—Milling plants in Canada: Industrial minerals.<br>25¢.                  | Cat. No. M36-(year)/3-2 |
| 4—Coal mines in Canada (alternate years).<br>25¢.                                 | Cat. No. M36-(year)/4   |
| 5—Petroleum refineries in Canada.<br>25¢.   | Cat. No. M36-(year)/5   |
| 6—Ceramic plants in Canada.<br>25¢.   | Cat. No. M36-(year)/6   |
| 7—Natural gas processing plants in Canada.<br>25¢.                                | Cat. No. M36-(year)/7   |

## ANNUAL MINERAL REVIEWS

### Preliminary mineral reviews on the Canadian mineral industry.

Published annually and subsequently revised for inclusion in *The Canadian Mineral Industry* series (See page ....). The series comprises separate reviews of metallics, industrial minerals and fuels, prepared with the assistance of the Mines Branch.

For years, the number of reviews in the series has been approximately 60, with about 56 being published annually. The remaining few vary from year to year depending on the importance of the commodity in the overall Canadian mineral industry scene.

Available free of charge from the Publication Distribution Office, Mines Branch and Mineral Resources Division.

The following are the reviews to be published covering the Canadian mineral industry for the year 1961.

General Summary .....	W. Keith Buck, R. B. Toombs and B. F. Burke
Abrasives .....	J. S. Ross
Aggregates, Lightweight .....	H. S. Wilson
Aluminum .....	W. H. Jackson
Antimony .....	J. W. Patterson
Asbestos .....	H. M. Woodrooffe
Barite .....	J. S. Ross
Bentonite .....	J. S. Ross
Bismuth .....	J. W. Patterson
Cadmium .....	J. W. Patterson
Calcium .....	W. H. Jackson
Cement .....	J. S. Ross
Chromium .....	V. B. Schneider
Clay and Clay Products .....	J. G. Brady
Coal and Coke .....	T. E. Tibbets and E. J. Burrough
Cobalt .....	V. B. Schneider
Copper .....	A. F. Killin
Feldspar .....	J. E. Reeves
Fluorspar .....	C. M. Bartley
Gold .....	T. W. Verity
Graphite .....	J. E. Reeves
Gypsum and Anhydrite .....	R. K. Collings
Indium .....	D. B. Fraser
Iron Ore .....	R. B. Elver
Lead .....	J. W. Patterson
Lime .....	J. S. Ross
Limestone .....	J. S. Ross
Lithium Minerals .....	J. E. Reeves
Magnesite and Brucite .....	J. S. Ross
Magnesium .....	W. H. Jackson
Manganese .....	V. B. Schneider
Mica .....	J. E. Reeves
Mineral Pigments and Fillers .....	J. S. Ross
Molybdenum .....	V. B. Schneider
Natural Gas .....	D. W. Rutledge
Nepheline Syenite .....	J. E. Reeves
Nickel .....	C. C. Allen
Niobium (Columbium) and Tantalum ....	V. B. Schneider

# MINERAL RESOURCES DIVISION PUBLICATIONS

Petroleum .....	D. W. Rutledge
Phosphate .....	J. E. Reeves
Platinum Metals .....	C. C. Allen
Potash .....	C. M. Martley
Roofing Granules .....	F. E. Hanes
Salt .....	R. K. Collings
Sand, Gravel and Crushed Stone .....	F. E. Hanes
Selenium and Tellurium .....	A. F. Killin
Silica .....	R. K. Collings
Silver .....	J. W. Patterson
Sodium Sulphate .....	C. M. Bartley
Stone, Building and Ornamental .....	F. E. Hanes
Sulphur .....	C. M. Bartley
Talc and Soapstone;	
Pyrophyllite .....	J. E. Reeves
Thorium .....	J. W. D. Griffith
Tin .....	W. H. Jackson
Titanium .....	V. B. Schneider
Tungsten .....	V. B. Schneider
Uranium .....	J. W. D. Griffith
Zinc .....	D. B. Fraser



## RAPPORTS ANNUELS DE L'INDUSTRIE MINIÈRE

**Rapports préliminaires de l'industrie minière du Canada.** Publiés annuellement et ensuite révisés pour être inclus dans la série des rapports miniers (voir page ....). La série comprend des rapports séparés des métaux, des minéraux industriels et des combustibles préparés avec la collaboration de la Direction des Mines.

Pendant longtemps, le nombre de rapports de cette série était d'environ 60, dont 56 étaient publiés chaque année. Les autres variaient d'une année à l'autre selon l'importance de la commodité sur la scène minière industrielle canadienne.

On peut s'en procurer des copies gratuitement au Bureau de distribution des publications, Division des Mines et Division des Ressources minérales.

Les rapports suivants ont été publiés pour couvrir l'industrie minière du Canada pour l'année.

Sommaire général .....	<i>W. Keith Buck, R. B. Toombs et B. F. Burke</i>
Abrasifs .....	<i>J. S. Ross</i>
Agrégats légers .....	<i>H. S. Wilson</i>
Aluminium .....	<i>W. H. Jackson</i>
Antimoine .....	<i>J. W. Patterson</i>
Argent .....	<i>J. W. Patterson</i>
Argile et produits d'argile .....	<i>J. G. Brady</i>
Asbestos .....	<i>H. M. Woodrooffe</i>
Barytine .....	<i>J. S. Ross</i>
Bentonite .....	<i>J. S. Ross</i>
Bismuth .....	<i>J. W. Patterson</i>
Cadmium .....	<i>J. W. Patterson</i>
Calcaire .....	<i>J. S. Ross</i>
Calcium .....	<i>W. H. Jackson</i>
Chaux .....	<i>J. S. Ross</i>
Chrome .....	<i>V. B. Schneider</i>
Ciment .....	<i>J. S. Ross</i>
Cobalt .....	<i>V. B. Schneider</i>
Cuivre .....	<i>A. F. Killin</i>
Étain .....	<i>W. H. Jackson</i>
Feldspath .....	<i>J. E. Reeves</i>
Fer, minerai de .....	<i>R. B. Elver</i>
Gaz naturel .....	<i>D. W. Rutledge</i>
Granules à couvertures .....	<i>F. E. Hanes</i>
Graphite .....	<i>J. E. Reeves</i>
Gypse et anhydrite .....	<i>R. K. Collings</i>
Houille et coke .....	<i>T. E. Tibbets et E. J. Burrough</i>
Indium .....	<i>D. B. Fraser</i>
Lithinifères, minéraux .....	<i>J. E. Reeves</i>
Magnésite et brucite .....	<i>J. S. Ross</i>
Magnésium .....	<i>W. H. Jackson</i>
Manganèse .....	<i>V. B. Schneider</i>
Mica .....	<i>J. E. Reeves</i>
Molybdène .....	<i>V. B. Schneider</i>
Nickel .....	<i>C. C. Allen</i>
Niobium et tantale .....	<i>V. B. Schneider</i>

## MINERAL RESOURCES DIVISION PUBLICATIONS

Or .....	T. W. Verity
Pétrole .....	D. W. Rutledge
Phosphate .....	J. E. Reeves
Pierres de construction et de décoration .	F. E. Hanes
Pigments minéraux et matière de charge .	J. S. Ross
Platinides .....	C. C. Allen
Plomb .....	J. W. Patterson
Potasse .....	C. M. Bartley
Sable, gravier et pierre concassée .....	F. E. Hanes
Sel .....	R. K. Collings
Sélénium et tellure .....	A. F. Killin
Silicides .....	R. K. Collings
Soufre .....	C. M. Bartley
Spath fluor .....	C. M. Bartley
Sulfate de sodium .....	C. M. Bartley
Syénite néphélinique .....	J. E. Reeves
Talc et pierre de savon; pyrophyllite ...	J. E. Reeves
Thorium .....	J. W. D. Griffith
Titane .....	V. B. Schneider
Tungstène .....	V. B. Schneider
Uranium .....	J. W. D. Griffith
Zinc .....	D. B. Fraser

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# INDUSTRIE MINIÈRE

## RAPPORTS PRÉLIMINAIRES ANNUELS

- Chapitres anticipés sous forme préliminaire *de l'Industrie minière du Canada*.
- Traitant de quelque 60 minéraux produits et consommés en quantité commerciale au Canada durant l'année.
- Concis et topiques.

**On peut se les procurer gratuitement au Bureau de distribution des publications, Direction des mines et Division des ressources minérales, Ministère des Mines et des Relevés techniques.**

---

## MINERAL MAPS

Map MR1.—**Canadian Iron Ore and the North American Iron and Steel Industry.** 1958. 110 miles to the inch, 28" x 30", 5 colours.

Map MR2.—**Iron Ore Trade, Canada and the World** (in preparation).

---

# MAP 900A

## Principal Mineral Areas

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- PRIMARY SMELTERS
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**The Mineral Resources Division or Geological Survey of Canada,  
Department of Mines and Technical Surveys,  
Ottawa.**

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# **Carte géographique 900A**

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des Relevés techniques,  
Ottawa.**

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## MISCELLANEOUS PUBLICATIONS PUBLICATIONS DIVERSES

**Reports on the Administration of the Emergency Gold Mining Assistance Act for the fiscal years ended March 31, for the period beginning in 1949.**

Year	Pages	Price	Cat. No.	Year	Pages	Price	Cat. No.
1949 (1st)	13p.	o.p.	M21-49	1957 (7th)	39p.	o.p.	M21-55
1950 (2nd)	21p.	o.p.	M21-50	1956 (8th)	29p.	o.p.	M21-56
1951 (3rd)	25p.	o.p.	M21-51	1957 (9th)	36p.	o.p.	M21-57
1952 (4th)	30p.	o.p.	M21-52	1958 (10th)	45p.	o.p.	M21-58
1953 (5th)	31p.	o.p.	M21-53	1959 (11th)	33p.	.25	M21-59
1954 (6th)	36p.	o.p.	M21-54	1960 (12th)	56p.	.25	M21-60

**Rapports sur l'application de la Loi d'urgence sur l'aide à l'exploitation des mines d'or, pour les années financières terminées le 31 mars à partir de 1949.**

Année	Pages	Prix	N° de cat.	Année	Pages	Prix	N° de cat.
1949 (1 <sup>er</sup> )	13p.	épuisé	M21-49F	1955 (7 <sup>e</sup> )	41p.	épuisé	M21-55F
1950 (2 <sup>e</sup> )	21p.	épuisé	M21-50F	1956 (8 <sup>e</sup> )	31p.	épuisé	M21-56F
1951 (3 <sup>e</sup> )	27p.	épuisé	M21-51F	1957 (9 <sup>e</sup> )	47p.	.25	M21-57F
1952 (4 <sup>e</sup> )	30p.	épuisé	M21-52F	1958 (10 <sup>e</sup> )	47p.	.25	M21-58F
1953 (5 <sup>e</sup> )	31p.	épuisé	M21-53F	1959 (11 <sup>e</sup> )	35p.	.25	M21-59F
1954 (6 <sup>e</sup> )	36p.	épuisé	M21-54F	1960 (12 <sup>e</sup> )	56p.	.25	M21-60F

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**MINES BRANCH AND  
MINERAL RESOURCES  
DIVISION**

**DIRECTION DES MINES ET  
DIVISION DES RESSOURCES  
MINÉRALES**

# **PART V**

## **INDEX**





# MINERAL RESOURCES DIVISION PUBLICATIONS

## NOTES

**Abbreviations or symbols used in the citations of this index**

**1. Reports or Maps (p. 19 to 117)**

**R.** .....Reports

*in R.* .....Article or report issued within a general report, v.g. Summary Reports, or Investigations Reports, or as an appendix to the report cited.

**R.M.** .....Maps

**2. Memorandum Series (p. 120 to 132)**

**M.S.** .....Memorandum

**3. Technical Papers (p. 133 and 134)**

**T.P.** .....Technical Paper

**4. List of operators (p. 135-136, 187)**

**5. Information Circulars**

**MR** .....Information Circulars (p. 137-138)

**IM** .....Information Circulars (p. 139)

**IC** .....Information Circulars (p. 150-153)

**Acts and Regulations (p. 140), Annual reports (p. 142-143)**

**6. Research Reports (p. 142-143, 156-165)**

**R** .....Research Reports

**7. Technical Bulletins (p. 168-171)**

**TB** .....Technical Bulletins

**8. Mineral Surveys (p. 179)**

**MS** .....Mineral Surveys

**9. Mineral Information Bulletins (p. 181-184)**

**MR** .....Mineral Information Bulletins

**10. Mineral Maps (p. 192)**

**MR** .....Mineral Maps

**p. or pp.** .....page or pages

**Note:** To avoid unnecessary repetition in the title index, the following words at the beginning of the title are deleted: Index map; Investigation of ...; Joint report on ...; Magnetic survey of ...; Notes on ...; On the ...; Preliminary report on ...; Report of the ...; Report on ...; Report on the investigation of ...; Sketch map of ...; Special report ...; Summary report...

## REMARQUES

### Abréviations et explications des particularités de cet index

#### 1. Rapports (p. 19 à 117)

R. ....Rapports

dans R. ....Article formant une partie d'un rapport général, v.g. Rapports sommaires ou appendice au rapport mentionné dans la référence.

R.M. ....Cartes (en anglais seulement)

#### 2. Mémoires (p. 120 à 132)

M.S. ....Mémoires

#### 3. "Technical Papers" (p. 133 et 134) En anglais seulement

T.P. ...."Technical Papers"

#### 4. List of operators (p. 135-136, 187) En anglais seulement

#### 5. Circulaires d'information

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IM ....Information Circulars (p. 139)

IC ....Circulaires d'information (p. 150-153)

Lois et règlements (p. 141), Rapports annuels (p. 144-145)

#### 6. Research Reports (p. 142-143, 156-165) En anglais seulement

R ....Research Reports

#### 7. Technical Bulletins (p. 168-171) En anglais seulement

TB ....Technical Bulletins

#### 8. Mineral Surveys (p. 179) En anglais seulement

#### 9. Mineral Information Bulletins (p. 181-184) En anglais seulement

MR ....Mineral Information Bulletins

#### 10. Mineral Maps (p. 192) En anglais seulement

MR ....Mineral Maps

p. ou pp. ....page ou pages

**Avis:** Pour faciliter la consultation de cet index, certains mots au début des titres furent intentionnellement omis. Par exemple: Enquête sur ...; Examen de ...; Rapport ...; Rapport préliminaire ...; Rapport sommaire ...; Recherches sur ....



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